UNIVERSITY OF
ILLINOIS LIBRARY
AT URBANA-CHAMPAIGN
STACKS

LIBRARY U. OF I. URBANA-CHAMPAIGN

LIBRARY U. OF I. URBANA-CHAMPAIGN

E/EIA-0109 (84/01)

Petroleum Supply Monthly

January 1984

BOOKSTACKS
DOCUMENTS

Energy Information Administration
Washington, D.C.

141-31

DEPOSITORY
APR 05 1984
UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

HERTZBERG – NEW METHOD, INC. EAST VANDALIA ROAD, JACKSONVILLE, ILL. 62650

TITLE NO.	ACCOUNT NO.	LOT AND TICKET NO.
0-0876.8840	07200-141	CM 39- 31 M [illegible]

42-5 U.S. * ENERGY * INFORMATION * ADMINISTRATION
* 42-12 MONTHLY * PETROLEUM * STATEMENT *
12

42-24 JAN.-JUNE-1984*
42-38 DOC.* E3.11:51*
984/1-6*

5TX1

CLOTH COLOR
0091 SEE MAINT 141-32 FOR "REMARK" :

HEIGHT
11 070

CHARGING INFORMATION				HEIGHT	PICA	WRAP
STUBBING		FRONT COVER		11	1/2	
HAND SEW		NO TRIM				
THRU SEW		PAGES LAMINATED				
THRU SEW ON TAPE		EXTRA THICKNESS				
HAND ADHESIVE		MAP POCKET PAPER				
LENGTHWISE		MAP POCKET CLOTH		SPECIAL WORK AND PREP.		
FOREIGN TITLE		SPECIAL WORK				
LINES OF LETTERING						

E/EIA-0109 (84/01)

Petroleum Supply Monthly

anuary 1984

ublished:
arch 1984

BOOKSTACKS
DOCUMENTS

Energy Information Administration
Washington, D.C.

141-31

DEPOSITORY
APR 05 1984
UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

LIBRARY U. OF I. URBANA-CHAMPAIGN

Subscription Information

Subscriptions

This publication is available on an annual subscription basis from the Superintendent of Documents, U.S. Government Printing Office (GPO). Prices and ordering information for this and other Energy Information Administration (EIA) publications may be obtained from the GPO or the EIA's National Energy Information Center. Addresses and telephone numbers appear below. An order form is enclosed for your convenience.

National Energy Information Center, EI-20
Energy Information Administration
Room 1F-048, Forrestal Building
Washington, D.C. 20585
(202) 252-8800

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
(202) 783-3238

Information

Questions on energy statistics may be directed to the National Energy Information Center at the address and phone number shown above.

Released for printing: March 28, 1984

etroleum
upply
lonthly

nuary 1984

blished:
rch 1984

> This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or necessarily reflecting any policy position of the Department of Energy or any other organization.

Energy Information Administration
Washington, D.C. 20585

DOE/EIA-0109 (84/01)
Dist. Category UC-98

LIBRARY U. OF I. URBANA-CHAMPAIGN

Contents

This Month in the PSM

This issue of the *Petroleum Supply Monthly* reflects changes in the Petroleum Supply Reporting System that became effective January 1984. Resultant changes to tables published herein are described on page v. "EIA Revises Petroleum Supply Reporting System," an article elaborating on changes to the reporting system, begins on page vii. Also, this month's Petroleum Focus section features two articles relating to petroleum consumption: "Trends in Petroleum Product Consumption," beginning on page xiii, and "Petroleum Consumption in the Industrial Sector," beginning on page xxi.

Page

Introduction v

EIA Revised Petroleum Supply Reporting System vii

Petroleum Focus

Petroleum Supply Summary xi

Trends in Petroleum Product Consumption xiii

Petroleum Consumption in the Industrial Sector xxi

Summary Statistics—through February 1984

Crude Oil and Petroleum Products Overview 2

Crude Oil Supply and Disposition 6

Crude Oil and Petroleum Products Imports 8

Finished Motor Gasoline Supply and Disposition 11

Distillate Fuel Oil Supply and Disposition 13

Residual Fuel Oil Supply and Disposition 15

Liquefied Petroleum Gases Supply and Disposition 17

Other Petroleum Products Supply and Disposition 18

Sources 19

Detailed Statistics—January 1984

National Statistics

1. U.S. Petroleum Balance 23
2. Supply and Disposition of Crude Oil and Petroleum Products 24
3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products 25
4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products 26
5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products 27

Supply and Disposition of Crude Oil and Petroleum Products by PAD Districts

6. PAD District I 28
7. PAD District II 29
8. PAD District III 30
9. PAD District IV 31
10. PAD District V 32

Production of Crude Oil and Lease Condensate

11. Production by PAD District and State, November 1983 33

Natural Gas Processing

12. Plant Production of Petroleum Products by PAD Districts 34

Refinery Operations by PAD District

13. Refinery Input of Crude Oil and Petroleum Products 35
14. Refinery Production of Petroleum Products 36
15. Percent Refinery Yield of Petroleum Products 37

LIBRARY U OF I. URBANA-CHAMPAIGN

Contents (Continued)

Page

Imports and Exports of Crude Oil and Petroleum Products

16. Imports by PAD District 38
17. Imports by Source and PAD District 39
18. Exports by PAD District 43
19. Exports by Destination 44

Stocks

20. Stocks of Crude Oil and Petroleum Products by PAD District 46

Transportation of Crude Oil and Petroleum Products Between PAD Districts

21. Movements by Pipeline, Tanker and Barge 51
22. Movements by Pipeline 52
23. Movements by Tanker and Barge 52
24. Net Movements by Pipeline, Tanker, and Barge 53

Heavy Fuel Oils by Sulfur Content

25. Production of Residual Fuel Oil 54
26. Stocks of Residual Fuel Oil 54
27. Movements by Tanker and Barge 54
28. Imports of Residual Fuel Oil by Country of Origin 55
29. Imports of Residual Fuel Oil by State of Entry 56
30. Stocks of Natural Gas Liquids by PAD District 57

Glossary

Definitions of Petroleum Products and Other Terms 61
Bureau of Mines Petroleum Refining Districts and PAD Districts 67

Maps

PAD Districts 68
Bureau of Mines Refinery Districts 69
District Map, Oil and Gas Division, Railroad Commission of Texas 70

Explanatory Notes

1. Data Collection Methodology 73
    1.1 Weekly Petroleum Supply Reporting System (WPSRS) 73
    1.2 Monthly Petroleum Supply Reporting System (MPSRS) 74
    1.3 Census Import (IM-145) and Export (EM-522 and EM 594) Data 76
2. Supply 77
3. Domestic Crude Oil Production 77
4. Disposition 78
5. Stocks 78
6. Average Stock Levels 78
7. Movements 79

Page

8. Preliminary Monthly Statistics 79
9. Notes on Tables 79
10. New Stock Basis 81
11. Stocks of Alaskan Crude Oil 82
12. Changes in Petroleum Industry Reporting 82
13. NGL Import/Export Algorithms 85

Figures

Petroleum Overview 4
Petroleum Products Supplied 4
Crude Oil Supply and Disposition 5
Crude Oil Ending Stocks 5
Motor Gasoline Supply and Disposition 10
Motor Gasoline Ending Stocks 10
Distillate Fuel Oil Supply and Disposition 12
Distillate Fuel Oil Ending Stocks 12
Residual Fuel Oil Supply and Disposition 14
Residual Fuel Oil Ending Stocks 14
Liquefied Petroleum Gases Supply and Disposition 16
Liquefied Petroleum Gases Ending Stocks 16

Introduction

Changes in the Petroleum Supply Monthly

Beginning with this issue, the Petroleum Supply Monthly (PSM) has been changed to incorporate revisions to the survey data collected for this report. The data collection forms which make up the Monthly Petroleum Supply Reporting System (MPSRS) were revised to improve data accuracy and utility to data users and to reduce respondent burden.

The detailed tables have been simplified, due to the reduction in the product detail collected. The following are the most significant changes to the tables:

- Ethane-propane mixtures have been eliminated as a line item from all tables. Ethane-propane mixtures are now included with the individual ethane and propane categories.

- Butane-propane mixtures have been eliminated as a line item from all tables. Butane-propane mixtures are now included with the individual normal butane and propane categories.

- Unfractionated streams have been eliminated as a line item from all tables. Unfractionated streams are now included with the individual ethane, propane, normal butane, isobutane, and pentanes plus categories.

- Natural gasoline, isopentane, and plant condensate have been eliminated as line items from all tables. Natural gasoline, isopentane, and plant condensate are now combined in the pentanes plus category.

- The product category butane has been renamed normal butane.

- An algorithm is used to allocate mixtures of liquefied petroleum gases import and export data into the new component basis.

In addition to the changes in the tables listed above, the Explanatory Notes and Glossary have been revised to reflect the January 1984 changes to the Monthly Petroleum Supply Reporting System.

LIBRARY U. OF I. URBANA-CHAMPAIGN

EIA Revises Petroleum Supply Reporting System

Beginning in January 1984, a number of changes were implemented in the Energy Information Administration's (EIA) Petroleum Supply Reporting System (PSRS). These changes affect reporting of natural gas liquids (NGL's). The modified system reflects supply and disposition of NGL on a component, rather than product, basis. Under the modified system, data accuracy and utility to data users will be improved, while respondent burden will be reduced. Four monthly survey forms have been revised and corresponding changes have been made to the tables published in the Petroleum Supply Monthly (PSM). This article summarizes the changes that were made and describes their impact.

EIA Review of the Petroleum Supply Reporting System

In June 1982, the EIA conducted public hearings on proposed changes to its PSRS. Comments made by participants in the hearings triggered a detailed study of NGL reporting procedures.

The NGL study commenced in October 1982 and was scheduled for completion in June 1983 to permit implementation of recommendations in January 1984. The study concentrated on defining user requirements, examining respondent burden, and identifying deficiencies in existing reporting. Options for improving reporting were formulated and recommendations were made. These options and recommendations were reviewed by government, industry and the public. There was universal agreement among information users, survey respondents and data processors that a component based system was preferred.

Changes in Data Collection and Reporting

The PSRS consists of one annual, eight monthly, and six weekly EIA surveys which collect information on domestic production, inventories, imports and movements of petroleum. Data from these surveys are supplemented by the Census Bureau's IM-145 tabulation which provides additional information on imports of liquefied petroleum gases (LPG), and EM-522 tabulation which provides information on petroleum exports. Four PSRS surveys have been modified beginning in January 1984.

Surveys affected by NGL reporting changes

EIA-810 Monthly Refinery Report
EIA-811 Monthly Bulk Terminal Report
EIA-812 Monthly Product Pipeline Report
EIA-816 Monthly Natural Gas Liquids Report

A fifth survey, the Form EIA-814, "Monthly Imports Report" (formerly Form ERA-60) was not modified. Temporarily, statistical adjustments will be applied to LPG imports data to make them consistent with the revised reporting system (See Explanatory Note 13).

From 1979 to 1983, the EIA collected and reported information on the supply and disposition of nine (9) NGL products (See Table 1). This slate of products presented survey respondents with categories for reporting which resulted in misclassifications, double-counting, and inconsistencies, particularly in the case of mixed product streams. Careful examination revealed that published figures for individual products were overstated by as much as 10 percent and that there was a discrepancy of up to 20 percent between aggregate LPG supply data and aggregate LPG sales data.

Table 1. Product Basis vs. Component Basis Reporting

	1984 Component Basis				
1979-1983 Product Basis	1. Ethane	2. Propane	3. Normal Butane	4. Isobutane	5. Pentanes Plus
1. Ethane	●				
2. Ethane-Propane Mixtures	●	●			
3. Propane		●			
4. Butane-Propane Mixtures		●	●		
5. Butane			●		
6. Isobutane				●	
7. Unfractionated Stream	●	●	●	●	●
8. Natural Gasoline and Isopentane					●
9. Plant Condensate					●

Beginning with January 1984, NGL supply and disposition will be reported on a five (5) component basis (See Table 1) consistent with recordkeeping practices used by industry. Prices of products sold by NGL suppliers are usually determined by the value of their chemical components. Most suppliers, therefore, analyze their products to determine their composition and maintain their records on a component basis.

Table 1 depicts the changes in the reporting system. All volumes of NGL's previously reported in 9 categories will now be reported in 5 categories:

- Ethane will include straight ethane streams plus the amounts of ethane included in E/P mix, and unfractionated stream.

LIBRARY U. OF I. URBANA-CHAMPAIGN

- Propane will include commercial grade propane and HD5 propane plus the amounts of propane included in E/P mix, B/P mix, and unfractionated stream.

- Normal Butane will include straight butane streams plus the amounts of butane in B/P mix and unfractionated stream.

- Isobutane will include straight isobutane streams plus the amount of isobutane included in unfractionated stream.

- Pentanes Plus will include products previously reported as natural gasoline, isopentane and plant condensate plus the amounts of these products in unfractionated stream.

Surveys which provide data on NGL imports and exports have not been modified to conform with this new component basis. The Form EIA-814, "Monthly Imports Report" is identical to its predecessor, Form ERA-60. Similarly, the NGL product slates on the Census Import Tabulation IM-145, and the Census Export Tabulation IM-522 are unchanged. To integrate import and export data in the PSM on a component basis, a series of algorithms have been developed to split mixes and unfractionated stream into their components. These algorithms are described in Explanatory Note 13 at the back of this publication.

Data Continuity

The predominant changes expected in the NGL data series, which can be attributed to reporting on a component basis, are found in production and stocks (See Table 2). The largest production increases are in ethane and propane. The increases are the result of splitting ethane-propane mixtures (E/P mix) and butane-propane mixtures (B/P mix) into their individual components. Likewise, the greatest stock increases are in ethane and propane. These increases are also the result of splitting E/P and B/P mixtures as well as unfractionated stream into their individual components. The splitting of unfractionated stream also results in an increase in total LPG stocks.

- Production - On the new basis, December 1983 production of ethane and propane is higher by189 and 65 thousand barrels per day , respectively, than on the old basis.

- Stocks - On the new basis, December 1983 stocks of ethane and propane are higher by 14 and 7 million barrels, respectively, than on the old basis. Total stocks of LPG are higher by approximately 7 million barrels.

- Small changes of a similar nature also occurred in stocks of normal butane and isobutane, and imports of isobutane.

- There is no change in the definition or measurement of Total Natural Gas Liquids.

Table 2. Production and Stocks of NGL's , December 1983

	Production (MB/D)		Stocks (MB)	
	Old Basis	New Basis (estimated)	Old Basis	New Basis
Natural Gasoline and Isopentane	181	NA	6,306	NA
Plant Condensate	30	NA	591	NA
Unfractionated Stream	–34	NA	9,062	NA
Pentanes Plus	NA	177	NA	8,765
Liquefied Petroleum Gases	1,645	1,645	100,563	107,757
Ethane	301	490	7,433	21,379
Propane	743	808	48,194	55,280
Normal Butane	NA	245	NA	20,389
Butane	244	NA	18,443	NA
Isobutane	101	102	9,716	10,709
Butane-Propane Mix	4	NA	1,624	NA
Ethane-Propane MIx	252	NA	15,153	NA
Total Natural Gas Liquids	1,822	1,822	116,522	116,522

NA = Not Applicable

Petroleum Focus

LIBRARY U. OF I. URBANA-CHAMPAIGN

Petroleum Supply Summary

Average Volume for Period (Million Barrels Per Day)	February 1984	February 1983	February % Change	Cumulative January Through February 1984	Cumulative January Through February 1983	Cumulative January Through February % Change
Products Supplied						
Motor Gasoline	6.1	6.0	1.5	6.2	6.0	3.2
Distillate Fuel Oil	2.8	2.8	– 1.6	3.2	2.8	12.7
Residual Fuel Oil	1.5	1.6	– 3.0	1.8	1.6	11.9
Other Products	5.0	4.4	14.1	5.0	4.4	13.0
Total	15.4	14.8	4.2	16.1	14.8	8.9
Crude Inputs to Refineries	12.1	10.6	13.9	11.8	10.9	9.0
Production						
Crude Oil, Natural Gas Liquids, and Other[1]	10.3	10.3	0.5	10.3	10.3	– 0.1
Imports						
Crude Oil[2]	2.9	2.1	41.5	2.9	2.4	19.3
SPR	0.1	0.2	– 55.8	0.1	0.2	– 30.3
Products	2.3	1.4	58.7	2.3	1.4	60.2
Total	5.3	3.7	42.9	5.3	4.0	31.2
Exports						
Crude Oil	0.2	0.3	– 41.6	0.2	0.2	– 17.7
Products	0.4	0.6	– 30.0	0.4	0.7	– 42.7
Total	0.6	0.9	– 33.5	0.6	0.9	– 37.6
Stock Withdrawal						
Crude Oil[2]	0.1	– 0.2	—	(s)	– 0.3	—
Products	– 0.7	1.1	—	0.2	1.0	—
Stocks at End of Period (Million Barrels)						
Crude Oil						
SPR	387	306	26.5			
Other	340	366	– 7.2			
Total	727	672	8.1			
Products						
Motor Gasoline[3]	233	251	– 7.2			
Distillate Fuel Oil	130	147	– 11.6			
Residual Fuel Oil	52	53	– 1.9			
Other	300	308	– 2.6			
Total	716	760	– 5.8			
Total Crude Oil and Products	1,442	1,432	0.7			

1 Includes alcohol and other hydrocarbon liquids.
2 Excludes Strategic Petroleum Reserve (SPR).
3 Including blending components.
(s) = Less than 0.05 million barrels per day.

NOTE: Percent changes are based on unrounded values. February 1984 data are estimates based on weekly data, except for exports, NGL production, other hydrocarbons, and alcohol which are January 1984 monthly values. Totals may not be equal to sum of components due to independent rounding.

Source: Energy Information Administration, Petroleum Supply Monthly, January 1984.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Trends In Petroleum Product Consumption

Decline in Petroleum Product Consumption Slows

Petroleum product consumption last year (measured as products supplied for domestic use) was the lowest since 1970—15.2 million barrels per day. This was 19 percent below the 1978 peak of 18.8 million barrels per day and continued a 5-year decline—the longest downward trend on record. Petroleum's share of total primary energy consumption decreased as well, from its peak of 49 percent in 1978 to 43 percent in 1983.

Following the Iranian Revolution, petroleum prices increased rapidly between 1979 and 1981. Together with sluggish economic conditions and other factors, this provided increased incentive for fuel switching, conservation, and fuel efficiency improvements through 1982. However, as the pace of economic activity picked up last year and petroleum prices subsided, the decline in petroleum product consumption slowed to about one-sixth of the average annual rate of decline observed since 1979.

As petroleum product consumption declined, consumption patterns for major products shifted. Shifts also occurred in consumption by various end-use sectors; e.g., the transportation sector's share of the petroleum market increased relative to consumption in other sectors.

This article highlights consumption trends for the major petroleum products (motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases, and jet fuel). It also discusses shifting consumption patterns within end-use sectors.

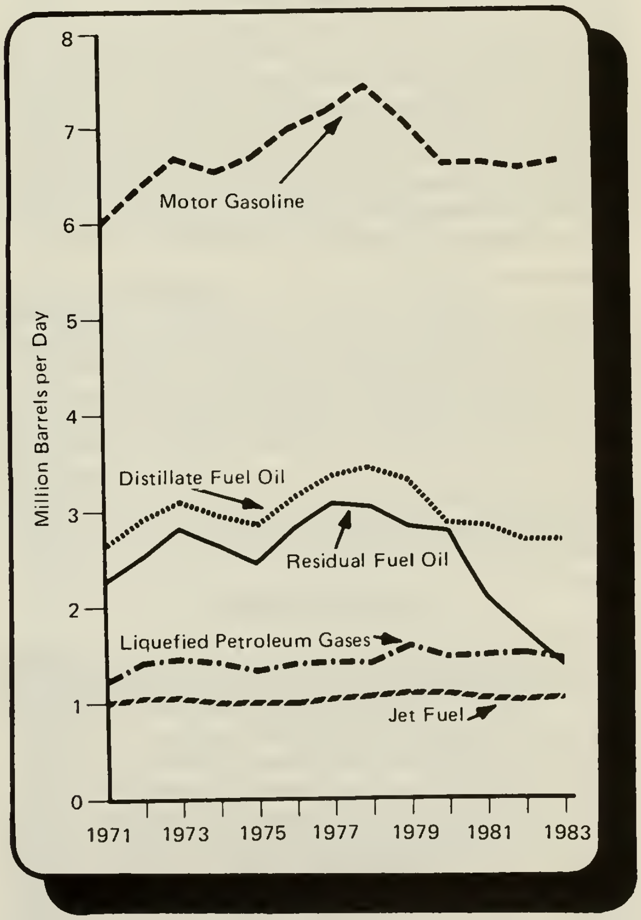
Note: The consumption data in this article are based on the State Energy Data System (SEDS), an EIA system that generates annual estimates of energy consumption by State and major end-use sectors. In the SEDS, State consumption of petroleum products is calculated by disaggregating national values using State sales or deliveries data. Complete documentation of the SEDS data sources and methodology is found in the EIA publication, *State Energy Data Report*, 1960 through 1981, DOE/EIA-0214(81), June 1983. This SEDS report is the source of consumption data presented in this article for the years 1971 through 1981, except where otherwise noted. The end-use sector consumption estimates for 1982 follow the latest SEDS methodology, but use 1982 source data. Petroleum product consumption for 1983 is drawn from the product supplied information in the *Petroleum Supply Monthly*. Unless otherwise noted, price and 1983 end-use data were based on the *Monthly Energy Review*, DOE-EIA-0035 (83/12[3]), December 1983[3]. Where final data were not available, estimates were based on preliminary data. References to consumption patterns for years prior to 1960 were from the U.S. Department of the Interior, Mineral Industry Surveys, *Petroleum Statement, Annual* and predecessor reports.

Major Product Consumption Trends

In 1983, consumption of the five major petroleum products (motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases, and jet fuel) totaled 13.2 million barrels per day, 19 percent below the 1978 peak of 16.3 million barrels per day. Consumption of these five products dropped 2 percent between 1982 and 1983. This was about a third of the annual average rate of decline during the previous 4 years. Residual fuel oil was the only major product to show a significant decline from its 1982 level, while the other major products showed little change.

Motor gasoline consumption increased slightly and distillate fuel oil consumption remained steady in 1983. Consumption patterns for these two products have been relatively flat since 1980, at approximately the same levels as in the early 1970's. Residual fuel oil consumption continued to decline sharply last year from its 1977 peak, while liquefied petroleum gases and jet fuel remained relatively constant (see Figure 1). The

Figure 1. Consumption of Major Petroleum Products



Source: Energy Information Administration, State Energy Data System (1971-82), "Petroleum Supply Monthly" (1983).

LIBRARY U. OF I. URBANA-CHAMPAIGN

consumption patterns for each of these major products and the events that influenced them are analyzed in this section.

Motor Gasoline

The third major decline in gasoline consumption in history began in 1979 following the Iranian Revolution. Only twice before—during World War II, and immediately after the 1973 Arab Oil Embargo had motor gasoline consumption taken a sharp downturn.

After peaking in 1978, motor gasoline consumption declined rapidly through 1980, then flattened out through 1983 at approximately the 1974 level (refer to Figure 1). Consumption of motor gasoline in 1983 was 6.6 million barrels per day, 1 percent higher than in 1982, but still well below the 1978 peak of 7.4 million barrels per day.

Iranian Revolution

Supply disruptions following the Iranian Revolution resulted in long lines at gas stations, and rapid price increases that served to immediately reduce discretionary driving. By 1980 average gasoline prices of $1.22 per gallon were almost double their 1978 level of $.65. At the same time, average miles traveled per passenger car showed a 9 percent reduction from the 1978 peak of 10,046.[1] As a result, motor gasoline consumption fell 11 percent between 1978 and 1980.

Economic Conditions

The economic recession of 1981-82 contributed to declines in other major petroleum products during this period, but apparently had little effect on motor gasoline consumption trends. The average miles traveled per vehicle increased slightly in both 1981 and 1982 despite the recession, indicating that discretionary driving was increasing. Part of the increase is attributed to moderating gasoline prices in late 1981 and 1982.

Despite increased driving, motor gasoline consumption remained stable. Continuing increases in automotive fuel efficiency and diesel use compensated for extra miles driven and held down gasoline consumption. As a result, consumption decreased about 1 percent between 1980 and 1982. In 1983, economic conditions improved and gasoline prices stabilized at their present levels of about $1.22 per gallon, further stimulating gasoline usage. Automotive fuel efficiency improvements and diesel conversions continued to hold down consumption increases, however.

Automotive Efficiency

Automotive fuel efficiency improvements were a major factor in the decline of motor gasoline consumption between 1979 and 1982. About 98 percent of the motor gasoline supplied in the United States is consumed in highway vehicle use, and about 70 percent of this is used in automobiles. The Federal Government's establishment in 1975 of the Corporate Average Fuel Economy (CAFE) Standards imposed fuel efficiency goals for new cars of 27.5 miles per gallon to be met by 1985. The effects of auto engineering and design changes sparked by the CAFE standards were apparent by 1979, when the average miles per gallon for all cars (including those manufactured before introduction of the CAFE standards) showed a 4 percent improvement over 1976 averages. By 1982, automobile turnovers had improved this average an additional 14 percent, as newer, more efficient cars replaced older, less efficient ones. This trend continued in 1983.

Fuel efficiency improvements during this period were largely due to increased sales of smaller cars. By 1979 sales of these cars showed major increases over 1978 levels, although total auto sales had begun a 4-year decline. By 1981 small cars accounted for 38 percent of U.S. auto sales compared with 31 percent in 1978. Lower motor gasoline prices during the past 2 years, and the improved economic conditions last year led to a reduction in the percent of small car sales in 1982 and 1983.[2] Even though small cars represented only 33 percent of total auto sales last year, their positive impact on the fuel efficiency of the auto fleet was a major factor in tempering the rise in motor gasoline consumption in 1983.

Diesel Usage

Diesel penetration of the auto market modified the consumption patterns of motor gasoline as well. In 1979, the diesel market was growing rapidly and represented about 3 percent of U.S. auto sales. For many car buyers, the cost advantage of diesel fuel, added to the relative durability and efficiency of diesel engines, translated into an economical solution to the gasoline shortage. In 1981 record sales of diesel-powered autos accounted for 6 percent of all auto sales. By 1982, however, motor gasoline was more plentiful and prices were lower than in 1981. Also, consumer disenchantment with the general inconvenience of diesel-powered autos influenced lower sales in 1982 and 1983.[3] As gasoline prices fell, average miles traveled per vehicle increased and in 1983 approached 1978's record level.[4] Despite this increase, motor gasoline consumption last year was 11 percent lower than in 1978, partly because of the higher number of diesel autos in the fleet.

Distillate Fuel Oil

Distillate fuel oil consumption in 1983 was 2.7 million barrels per day, virtually unchanged from the 1982 consumption, but well below the 1978 peak of 3.4 million barrels per day. Although total distillate fuel oil consumption has been close to the 1971 level for the past 2 years (refer to Figure 1), its consumption patterns changed dramatically. Transportation use grew from 30 percent of distillate fuel oil consumption in 1971, to 49 percent in 1982, while the portion of consumption for heat and power dropped from 70 percent to 51 perent during the same period.

---

[1] U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, 1979, 1980, 1981, 1982, Table VM-1.

[2] Ward's Communications, Inc., *Ward's Automotive Reports*, January 8, 1979, January 12, 1981, and January 10, 1983, inserts; and January 9, 1984, p. 11.

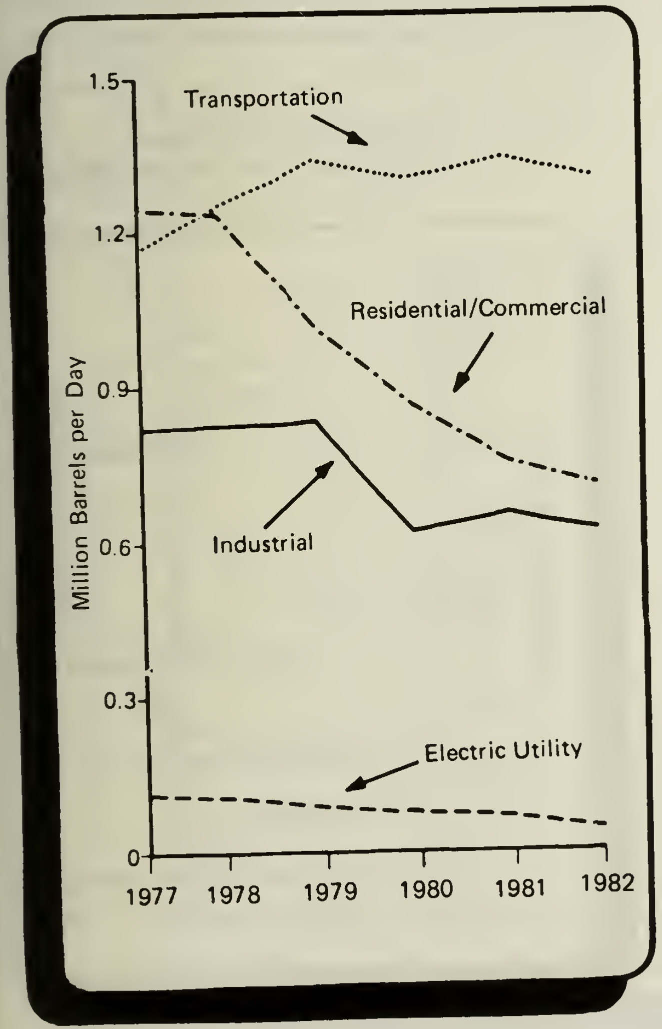
[3] Ward's Communications, Inc., *Ward's Automotive Reports*, January 19, 1981, p. 17; January 17, 1983, p. 21; and January 16, 1984, p. 19.

[4] Estimates based on data from U.S. Department of Transportation, Federal Highway Administration, *Traffic Volume Trends*, December 1983, Table 4 and *Selected Highway Statistics and Charts 1982*, pp. 2–3.

Between 1979 and 1982, rapid petroleum price increases and sluggish economic conditions led to increased conservation, fuel switching, and development of more efficient fuel-burning equipment in the residential/commercial, industrial, and electric utility sectors. These factors caused consumption of distillate fuel oil for heat and power to decline 37 percent by 1982 from its 1977 peak, despite colder than normal weather during most of this period.[5] [6] During the same period, diesel conversion of the vehicle fleet helped to keep transportation use of distillate fuel oil near the 1979 peak level.

Use of distillate fuel oil (diesel fuel) for transportation increased between 1976 and 1979 and has remained near the 1979 level since. By 1979, distillate fuel oil use was declining in most sectors of the economy (see Figure 2). Transportation use was at its peak, however, and represented 41 percent of consumption. Although distillate fuel oil consumption in the transportation sector dropped about 4 percent between 1979 and 1982, that sector increased its share of total distillate fuel oil consumption to 49 percent by 1982.

Figure 2. Distillate Fuel Oil Consumption, by End-Use Sector



Source: Energy Information Administration, State Energy Data System.

Approximately 70 percent of the distillate fuel oil consumed in the transportation sector is for highway use. About 20 percent is used by railroads, and the remainder is used for vessel bunkering and military operations. The increase of diesel-powered highway vehicles contributed to the stable distillate fuel oil consumption pattern between 1979 and 1982, even though railroad, vessel bunkering, and military uses were generally declining during this period in association with the sluggish economy. In 1983, transportation use of distillate fuel oil increased moderately as truck, rail, and auto traffic increased[7] [8] in association with improved economic conditions.

Figure 2 shows that the recent downward trend in distillate fuel oil consumption followed a unique pattern for each of the nontransportation sectors (residential/commercial, industrial, and electric utility). In the residential/commercial sector, where distillate fuel oil is the leading petroleum product used, consumption dropped sharply between 1978 and 1981, then continued dropping at a slower rate in 1982. This decline is attributed to immediate conservation efforts in reaction to the 1979 price escalation, combined with price-induced fuel switching to natural gas and wood.[9] In the industrial sector, price and economic conditions influenced distillate fuel oil use. The 1979 petroleum price escalation led to conservation and switching to natural gas. At the same time, the sluggish economy caused lower industrial output and led to the development of more efficient equipment to reduce operating costs. Improved economic conditions last year brought about increased industrial activity, but continued upgrading of equipment served to keep industrial consumption of distillate fuel oil flat in 1983. Electric utility use of distillate fuel oil decreased steadily from 1978 to 1982, as utilities replaced distillate fuel oil with less expensive alternate fuels. Consumption at utilities in 1983 increased moderately from the 1982 level[10] in association with colder weather toward the end of the year.

Residual Fuel Oil

Residual fuel oil consumption in 1983 was 1.4 million barrels per day, 18 percent below 1982 levels. This was the lowest consumption since 1949, when railroads still used significant amounts of residual fuel oil and electric utilities were not yet the principal consumers of the product.

Between 1977 and 1982 the consumption patterns of residual fuel oil changed dramatically (see Figure 3). By 1982 residual fuel oil consumption had dropped 44 percent from its 1977 peak. Electric utility use showed the

---

[5] Energy Information Administration, *Residential Energy Consumption Survey, Consumption and Expenditures, April 1981 through March 1982*, DOE/EIA-0321 (1/81), September 1983, p. 3.

[6] Energy Information Administration, *Weekly Petroleum Status Report, December 30, 1983*, DOE/EIA-0208 (83/52) (84/01), January 6, 1984, p. 22.

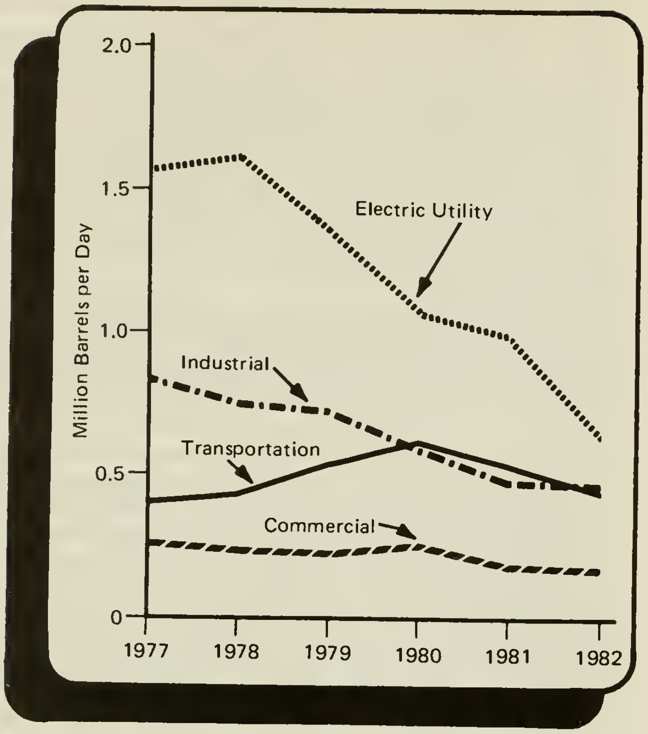
[7] U.S. Department of Transportation, Federal Highway Administration, *Selected Highway Statistics and Charts 1982*, p. 4, and *Traffic Volume Trends*, December 1983, Table 4.

[8] *LP-Gas*, November 1983, p. 10.

[9] Energy Information Administration, *Residential Energy Consumption Survey, Housing Characteristics 1981*, DOE/EIA-0314 (81), August 1983, p. 4.

[10] Energy Information Administration, *Electric Power Monthly*, DOE/EIA-0226 (83/12), March 1984, Table 12.

Figure 3. **Residual Fuel Oil Consumption, by End-Use Sector**



Source: Energy Information Administration, State Energy Data System.

most drastic decline during this period, primarily due to the 150 percent rise in residual fuel oil prices between 1978 and 1981. This made it much more economical for utilities to replace residual fuel oil with natural gas and coal. The annual average rate of decline in residual fuel oil use at utilities from 1979 to 1982 ranged between 16 percent and 29 percent, while natural gas and coal use either increased or declined slightly each year. Industrial use of residual fuel oil declined each year after 1977, but most of the decline occurred between 1979 and 1981, associated with conservation, price-induced fuel switching and the economic recession. Commercial use was also affected by these factors, but in contrast to the other sectors, it remained fairly stable.

Transportation use of residual fuel oil was on an upward trend between 1975 and 1980. Price controls in effect through most of 1980 in the United States held high-sulfur residual fuel oil prices below those at foreign ports. This made it advantageous for foreign trade vessel operators to purchase their bunker fuel in the United States. By 1981 high-sulfur residual fuel oil prices became comparable to foreign prices[11] and world demand for petroleum, the major commodity shipped, was decreasing.[12] These factors caused transportation use to decline each year from 1981 through 1983.

Consumption of residual fuel oil at utilities in 1983 continued to decline, but at a slower rate than during the previous four years. Of the fossil fuels, residual fuel oil and natural gas continued to provide smaller amounts of fuel for electricity generation in 1983, while coal consumption increased.[13]

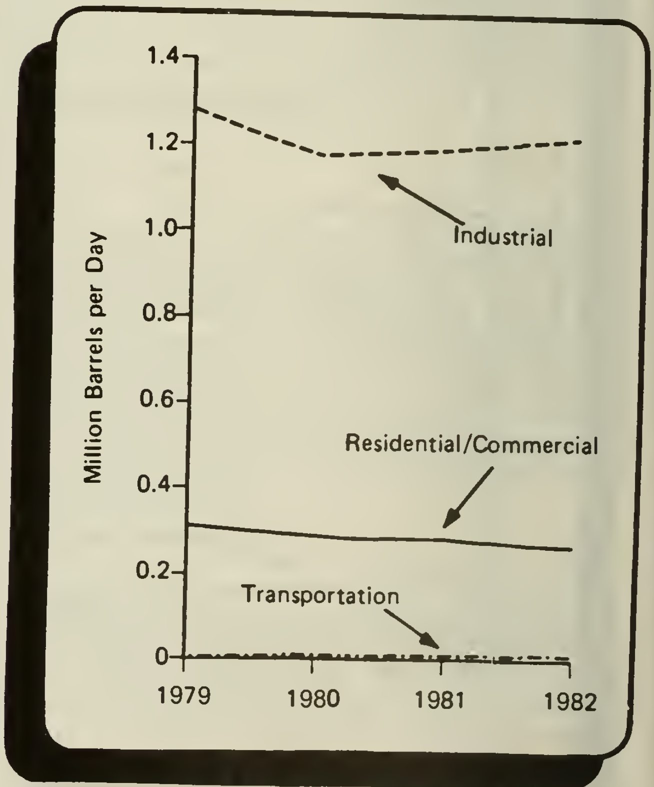
The low cost of residual fuel oil relative to that of distillate fuel oil led to the development during 1983 of a distillate/residual fuel mix at a ratio of 9 to 1, with possibilities of a 7 to 3 ratio, which may in the near future replace the more expensive diesel fuel while maintaining diesel engine efficiency for industrial and marine uses.[14]

Liquefied Petroleum Gases

Liquefied petroleum gases (LPG's) have become increasingly important since 1971 (refer to Figure 1), primarily as feedstocks in the chemical industry. LPG's are also used as blending components for gasoline at refineries, for heat and power in the residential/commercial and industrial sectors, and as relatively pollution-free transportation fuel.

Industrial and residential/commercial use of LPG's declined after 1979 in response to the sudden price increases (see Figure 4). Industrial use recovered somewhat in 1982. LPG consumption in the transportation

Figure 4. **Liquefied Petroleum Gases Consumption, by End-Use Sector**



Source: Energy Information Administration, State Energy Data System.

---

[11] *Platt's Oil Price Handbook and Oilmanac*, 54th Edition, pp. 49, 405; 55th Edition, p. 390; 56th Edition, p. 371; 57th Edition, p. 349; 58th Edition, p. 325; 59th Edition, pp. 94, 95, 99, 102, 301.

[12] Energy Information Administration, *International Energy Annual*, 1979, 1980, 1981, and 1982, DOE/EIA-0219, Table 14.

[13] Energy Information Administration, *Electric Power Monthly*, DOE/EIA-0226 (83/1, 83/2, 83/3, 83/4), Table 1.

[14] *Oil and Gas Journal*, December 12, 1983, pages 116-120; December 19, 1983, pp. 75-76.

sector doubled between 1979 and 1982, as fleet vehicles were converted from motor gasoline to propane. LPG consumption remains an insignificant portion of the transportation market, however.

During 1983, an unusual fluctuation in the world LPG market caused prices to increase and depressed domestic consumption for about four months. As a result, in 1983 consumption of LPG's was 1.5 million barrels per day, essentially unchanged from 1982 levels, but 6 percent below the 1979 peak of 1.6 million barrels per day.

Jet Fuel

Jet fuel consumption has remained between 1.0 and 1.1 million barrels per day since 1969. Within this narrow range of consumption, jet fuel peaked in 1979, then declined 6 percent by 1981, and has remained near 1.0 million barrels per day since.

Approximately 80 percent of all jet fuel is consumed by the airline industry, and 20 percent is used in military operations. Between 1979 and 1982, airlines' consumption of jet fuel dropped slightly as three events affected air travel. These were the doubling of jet fuel prices between 1979 and 1981, the 1981 Air Traffic Controllers' strike, and the economic recession which spanned 1981 and 1982.

In 1983, jet fuel prices dropped to 1980 level,[15] the economic recovery contributed to increased personal and business travel, and airline schedules were almost normal. As in other industries, however, consumption was affected by fuel efficiency improvements: airlines were replacing older planes with 30-40 percent more fuel-efficient equipment.[16] The continued flat jet fuel consumption in 1983 is attributed to the combined effects of these factors.

End-Use Sector Consumption

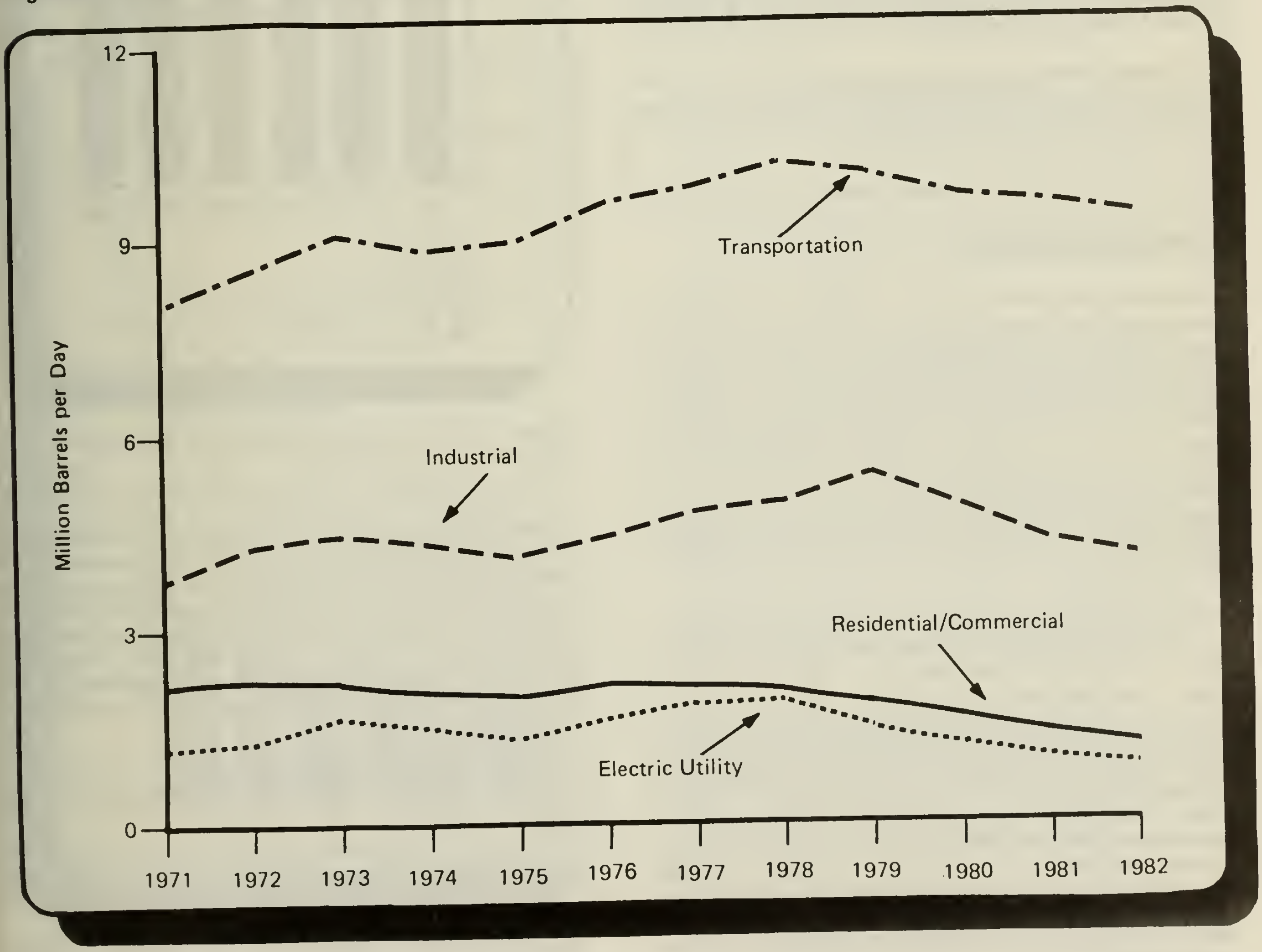
Petroleum consumption for transportation in recent years declined at a much slower rate than did residential/commercial, electric utility, and industrial consumption (see Figure 5). This section describes these changes and the factors which influenced them.

---

[15] Energy Information Administration, *Petroleum Marketing Monthly*, DOE/EIA-0380 (83/12[2]), February 1984, Table 11.

[16] *U.S. News and World Report*, March 21, 1983, p. 63.

Figure 5. Consumption of Petroleum Products, by End-Use Sector



Source: Energy Information Administration, State Energy Data System.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Definitions of Major End-Use Consuming Sectors

The State Energy Data System assigns energy consumption to five major end-use sectors according to the following guidelines:

- **Residential Sector.** Energy consumed by private household establishments primarily for space heating, water heating, air conditioning, cooking, and clothes drying.

- **Commercial Sector.** Energy consumed by nonmanufacturing establishments. Included are motels, restaurants, wholesale businesses, retail stores, laundries, and other service enterprises, as well as health, social, and educational institutions, and energy consumed by Federal, State, and local government.

- **Industrial Sector.** Energy consumed by manufacturing, construction, mining, agriculture, fishing, and forestry establishments.

- **Transportation Sector.** Energy consumed to move people and commodities in both the public and private sectors. Also included are military, railroad, vessel bunkering, and marine uses, as well as the pipeline transmission of natural gas.

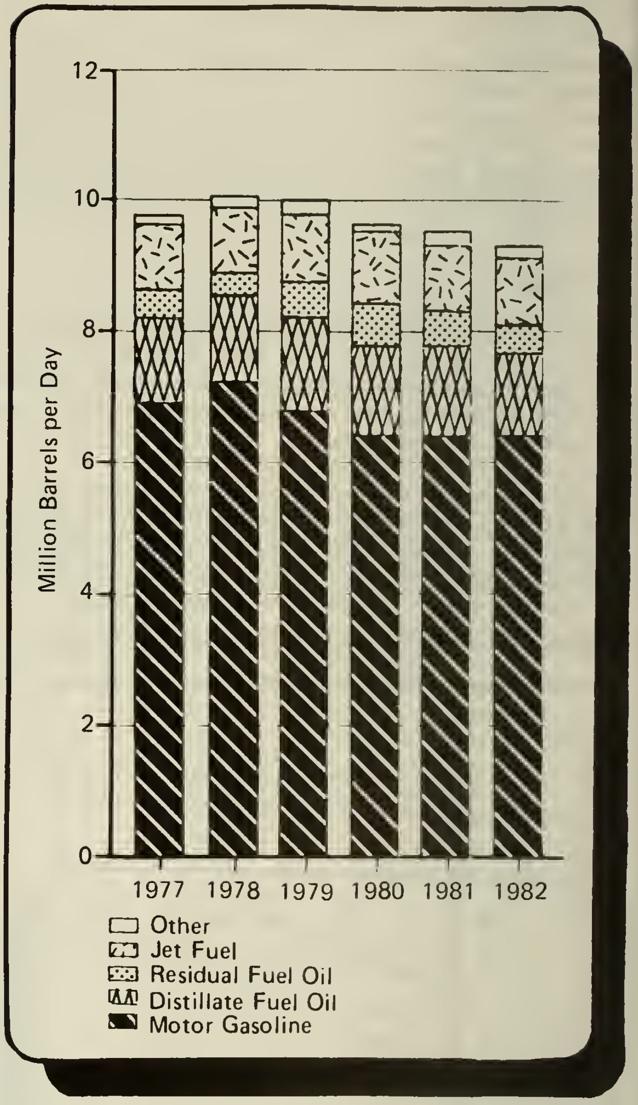
- **Electric Utility Sector.** Energy consumed by privately- and publicly-owned establishments which generate electricity primarily for resale.

Transportation Sector

Throughout the 1970's and early 1980's, the transportation sector has consumed about one-fourth of the Nation's energy, and petroleum has accounted for about 97 percent of the energy used in this sector. Transportation use of petroleum products decreased each year after peaking in 1978 at 10.1 million barrels per day (see Figure 6), and was 8 percent lower by 1982 when 9.3 million barrels per day were consumed. The portion of petroleum used for transportation has increased since then, however, from 54 percent in 1978 to 61 percent in 1982, because consumption in other sectors dropped more rapidly.

The increase in the use of petroleum products for transportation was interrupted after the 1973 price escalation. Consumption then peaked in 1978, and subsequently declined each year through 1982 (refer to Figure 5). Three main conditions contributed to the decline in transportation use between 1979 and 1982. The price of petroleum products in the transportation sector jumped 34 percent in 1979, and climbed another 38 percent in 1980.[17] As prices escalated, the recessionary economy of 1981 and 1982 contributed to lower railroad activity, shipping, and travel. At the same time the cumulative impact of fuel efficiency improvements (increased miles per gallon in highway vehicles; more efficient replacement equipment) was affecting all types of transportation use.

Figure 6. Transportation Use of Petroleum, by Product



Source: Energy Information Administration, State Energy Data System.

In 1983, consumption of motor gasoline, distillate fuel oil, jet fuel, and liquefied petroleum gas (propane) in the transportation sector rose slightly as the economic upturn resulted in more travel and increased rail and truck traffic.[18] [19] Consumption was tempered somewhat by continued fuel efficiency improvements. Transportation use of residual fuel oil, however, declined for the third straight year as vessel bunkering requirements continued downward.[20]

---

[17] Energy Information Administration, *Energy Price and Expenditure Data Report, 1970-1980*, DOE/EIA-0376, July 1983, Table 3.

[18] U.S. Department of Transportation, Federal Highway Administration, *Selected Highway Statistics and Charts 1982*, p. 4, and *Traffic Volume Trends*, December 1983, Table 4.

[18] *LP-Gas*, November 1983, p. 10.

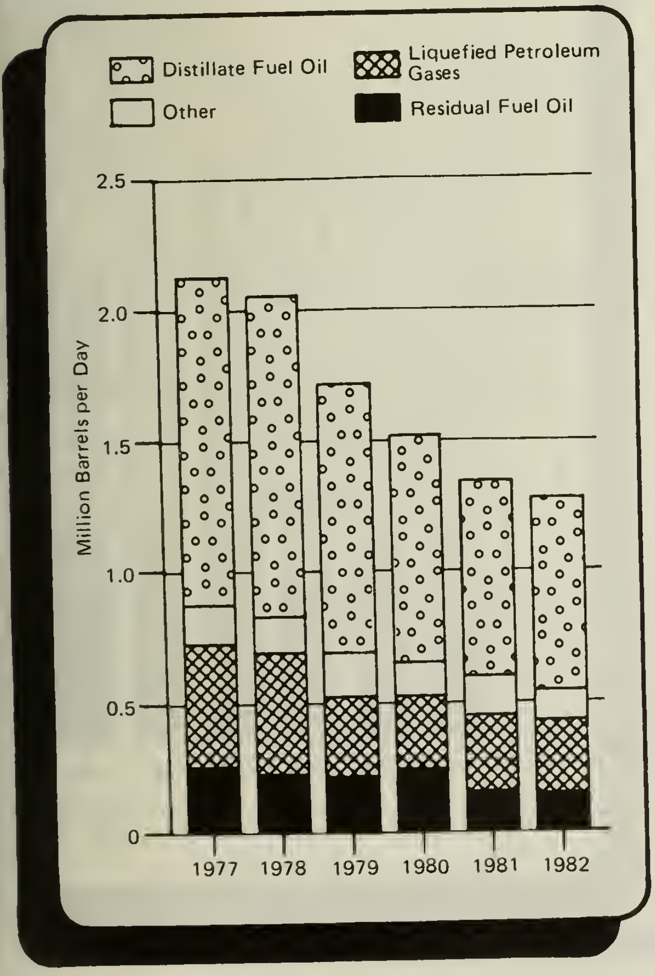
[20] Estimates based on U.S. Department of Commerce, *United States Foreign Trade, Bunker Fuels*, January 1983 through December 1983.

Residential/Commercial Sector

Energy use in the residential/commercial sector of the economy represents more than one-third of all energy needs in the United States. Space heating and water heating account for much of the petroleum use in this sector. In 1982, 60 percent of the energy used for residential/commercial purposes was supplied by electricity (including losses), 29 percent by natural gas, and only 10 percent by petroleum products. By contrast, petroleum supplied 16-17 percent during most of the 1970's. The portion of petroleum used in the residential/commercial sector has decreased as well over the years. In the early 1970's, the residential/commercial sector accounted for 14 percent of all petroleum product consumption; by 1982, this sector consumed only 8 percent.

As previously illustrated in Figure 5, residential/commercial use of petroleum was higher in the early 1970's than at any time since. Even in 1978, when the weather was 8 percent colder than normal,[21] and energy consumption in this sector was at its highest, petroleum consumption declined (see Figure 7). Between 1979 and 1983, warmer weather conditions than in 1978 contributed to lower energy use in this sector.

Figure 7. Residential/Commercial Use of Petroleum, by Product



Source: Energy Information Administration, State Energy Data System.

With the rapid price rises associated with the 1973 Arab Oil Embargo came a serious interest in conservation. The cumulative effect of permanent conservation measures, such as improved building insulation and development of practical solar-heating methods, contributed to the yearly decline in residential/commercial use of petroleum products since 1977. Switching to less expensive fuels also influenced the decline, especially since 1979, when residential/commercial petroleum prices increased at double the rate of natural gas price increases, and at five times the rate of electricity price increases.[22] By 1982, residential/commercial use of petroleum hit its lowest level since data for this sector was first separately classified, in 1960.

In 1983, residential/commercial use of petroleum products declined for the sixth consecutive year, in association with the continued effects of conservation and mild weather in the winter of 1982-83.

Electric Utility Sector

About one-third of the energy consumed in the United States is associated with the production of electricity. Petroleum, coal, natural gas, hydropower and nuclear power are the primary sources of energy for the production of electricity.

Coal, the least expensive fossil fuel, provided about 45 percent of utilities' energy needs during the 1970's, and accounted for over 50 percent during the early 1980's. Petroleum's share declined in the past decade from 18 percent to 6 percent. During that period, nuclear power's share increased from 5 percent in 1973 to 13 percent in 1982. The high price of petroleum relative to the price of natural gas and coal also contributed to its decline through 1982.

Petroleum consumption at electric utilities was 0.7 million barrels per day in 1982, 61 percent below the 1978 peak of 1.8 million barrels per day (see Figures 5 and 8). Residual and distillate fuel oils are the major petroleum products used at electric utilities.

In 1983, the price per Btu of petroleum at utilities decreased, while the price for the other fossil fuels increased. This reversal in trend led some utilities to switch back to petroleum from natural gas in early 1983, and helped to slow the decline in petroleum use.[23] Before 1983, petroleum use had been declining sharply in recent years—by as much as 29 percent in 1982.[24]

---

[21] Energy Information Administration, *Residential Energy Consumption Survey, Consumption and Expenditures, April 1981 through March 1982*, DOE/EIA-0321 (1/81), September 1983, p. 3.

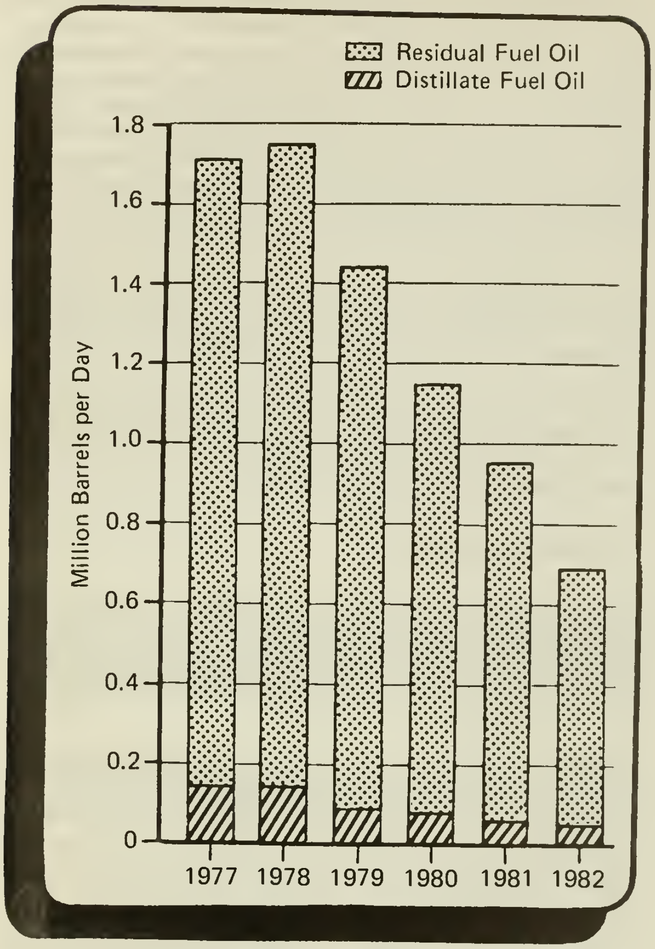
[22] Energy Information Administration, *Energy Price and Expenditure Data Report, 1970-1980*, DOE/EIA-0376, July 1983, Table 3.

[23] American Gas Association, *Industrial Fuel Switching: 1982 and 1983 Potential*, July 29, 1983.

[24] Energy Information Administration, *Electric Power Monthly*, DOE/EIA-0226 (83/12), December 1983, Table 12.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Figure 8. Electric Utility Use of Petroleum, by Product



Source: Energy Information Administration, State Energy Data System.

Industrial Sector

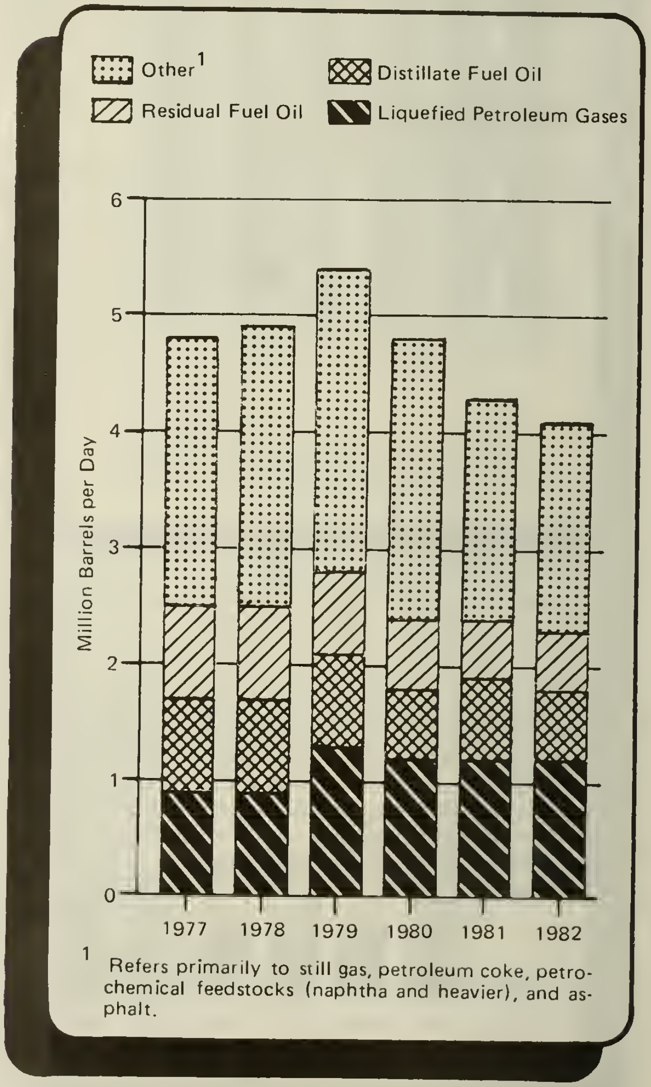
The industrial sector is the largest consumer of energy in the United States, and accounts for more than one-fourth of the total U.S. consumption of petroleum products. Industrial consumption of petroleum peaked in 1979 at 5.4 million barrels per day, then declined each following year through 1983. This decline was greater than declines in petroleum use in other sectors. The decline was associated with the economic slowdown, fuel switching, and conservation efforts by industry.

In recent years, many industrial energy consumers installed dual-fuel facilities[25] to cushion themselves from shortages and price increases. While the industrial use of all fossil fuels declined during the past 2 years, increasing natural gas prices, combined with lower petroleum prices, led to increased use of petroleum fuels relative to the use of natural gas.

Liquefied petroleum gases (LPG's), distillate fuel oil, and residual fuel oil are the major petroleum products consumed in the industrial sector. Other petroleum products used include asphalt, still gas, petroleum coke, and naphtha feedstocks. Industrial consumption of LPG's and distillate fuel oil peaked in 1979, while industrial consumption of residual fuel oil peaked in 1977 (see Figure 9).

The accompanying article, "Petroleum Consumption in the Industrial Sector," includes further information on industrial consumption of petroleum products in recent years.

Figure 9. Industrial Use of Petroleum, by Product



[1] Refers primarily to still gas, petroleum coke, petrochemical feedstocks (naphtha and heavier), and asphalt.

Source: Energy Information Administration, State Energy Data System.

---

[25] J. Slaff, "Dual Fuel Boiler Use Seen Holding Oil Costs Steady," *Energy User News*, Vol. 9, No. 9, February 27, 1984, p. 1.

Petroleum Consumption in the Industrial Sector

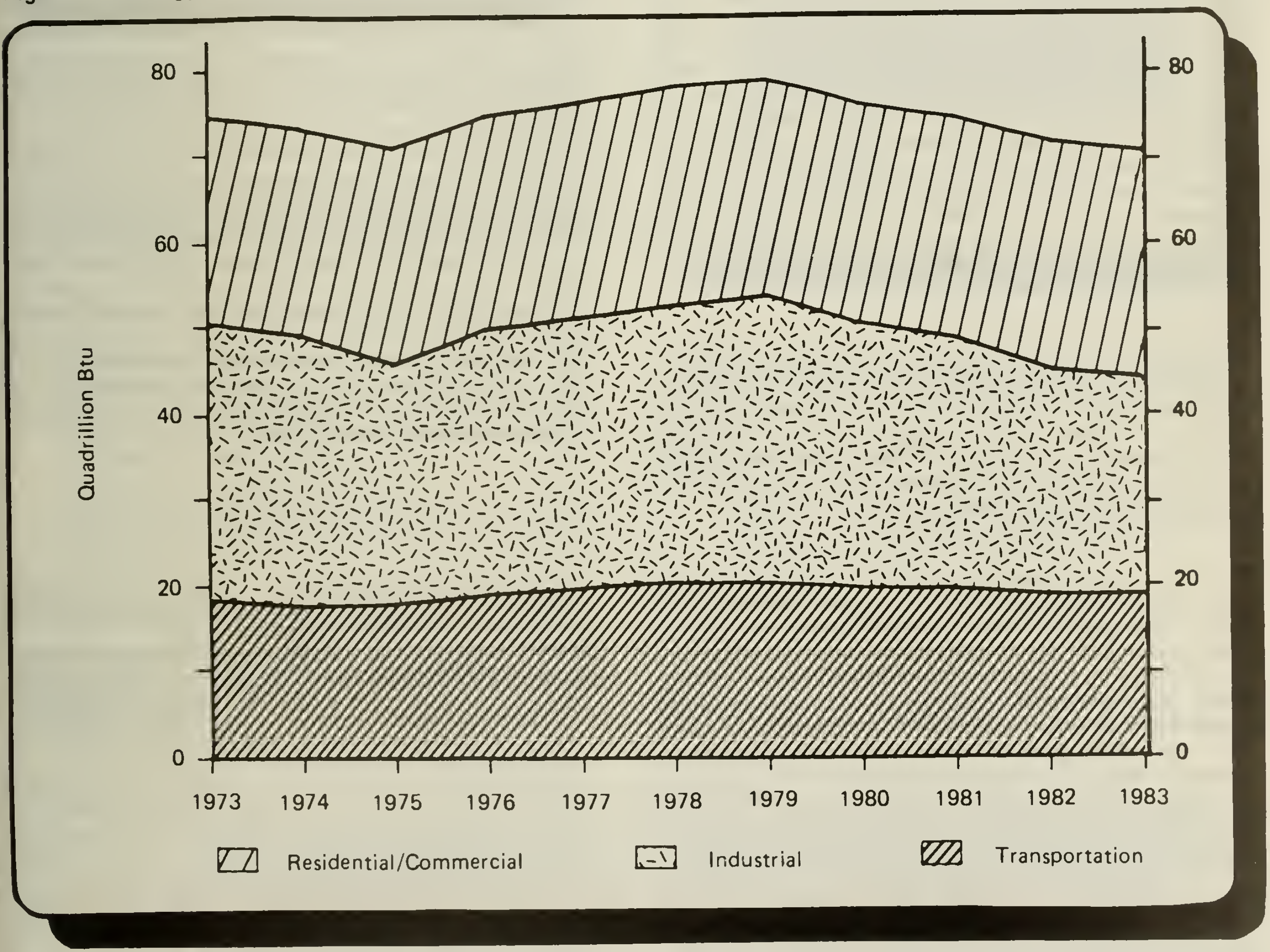
U.S. gross energy consumption totaled 70.7 quadrillion British thermal units (Btu) in 1983, according to Energy Information Administration (EIA) estimates.[1] Consumption was slightly below the 1982 level and represented the fourth consecutive yearly decline since the 1979 consumption peak of 78.9 quadrillion Btu (see Figure 1). This decline took place despite the nearly 4 percent increase in the Gross National Product (GNP) during the 1979-83 period. The impetus for this dramatic decrease in energy consumption was the significant increase in energy prices that immediately followed the 1979 Iranian oil supply disruption. Between 1979 and 1981, the average refiner acquisition cost of crude oil increased from $17.72 to $35.24 per barrel. It then declined to $29.01 per barrel in 1983. Wholesale prices of leading petroleum products paralleled those changes.

Energy consumption by end-use sector from 1973 to 1983 is shown in Figure 1. Electricity sales and energy losses, such as those occurring in the generation and transmission of electricity, are included in the energy consumption totals for each sector. These electricity sales and energy losses account for more than one-half of the energy consumed by the residential/commercial sector; they are a minor part of energy consumption in the transportation sector; they account for about one-third of the energy consumed by the industrial sector, the largest energy consumer in the United States. The industrial sector accounts for more than one-fourth of U.S. petroleum product consumption, and includes

---

[1] Energy Information Administration, *Short-Term Energy Outlook*, DOE/EIA-0202 (84/1Q), February 1984.

Figure 1. Energy Consumption, by End-Use Sector



Source: Energy Information Administration, "Monthly Energy Review," December 1983 [3] and "State Energy Data Report, 1960 through 1981," June 1983. Estimates for 1983 are based on preliminary data.

LIBRARY U. OF I. URBANA-CHAMPAIGN

agriculture, construction, fishing, forestry, manufacturing, and mining.

Domestic petroleum consumption averaged 15.2 million barrels per day during 1983, down 112,000 barrels per day from the 1982 level and 18 percent below the 18.5 million barrels per day during 1979.[2] In 1983, petroleum consumption was at the country's lowest level since 1970 and resulted from a low level of economic activity, price-stimulated fuel switching, and conservation efforts. Since 1979, the largest decline in demand for petroleum occurred in the industrial sector. Although the percentage decline in electric utility use was higher, the volume of decline was less than that of the industrial sector. This article discusses the major petroleum products used by the industrial sector and the principal consuming areas in that sector. The industrial petroleum consumption estimates for 1983 are based on preliminary data. These estimates also assume individual product consumption shares virtually the same as those reported for 1982.

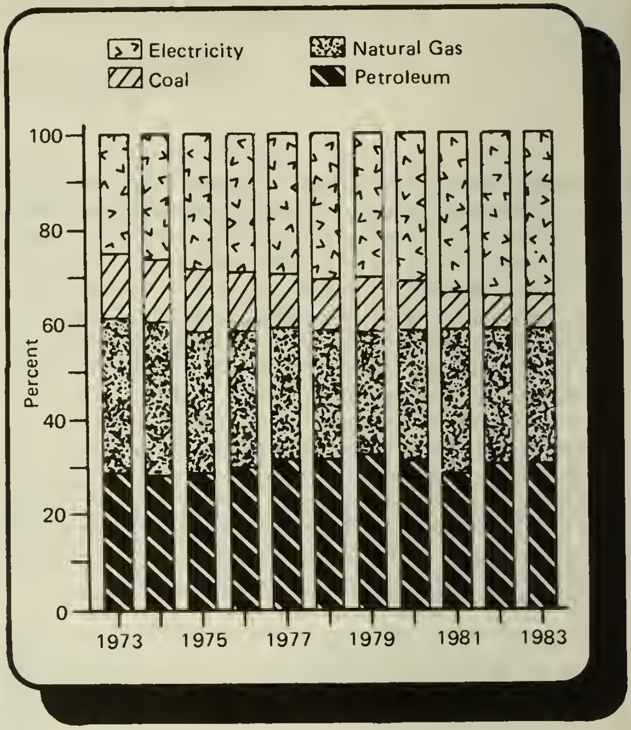
Petroleum Consumption in the Industrial Sector

Energy consumption by the industrial sector declined steadily from the peak of 32.7 quadrillion Btu in 1979 to 25.8 quadrillion Btu during 1983, responding to decreases in energy-intensive production of basic industries. The relative importance of coal, natural gas, and petroleum fuels and feedstocks to the industrial sector has not changed greatly in recent years (see Figure 2), and the use of electricity has established its importance in many industrial applications. Electricity has increased its share of the energy consumed by industry during each of the last 10 years. During 1983, electricity accounted for an estimated 34 percent of all the energy consumed by the industrial sector.

Consumption of petroleum by the industrial sector experienced its fourth consecutive year of decline and averaged 4.0 million barrels per day in 1983 (see Figure 3). This was down about 1 percent from the 1982 level and its lowest level since 1971. The decline was associated with the economic slowdown, fuel switching, and conservation efforts by industry.

In recent years, many industrial energy consumers have installed dual-fuel facilities to cushion themselves from shortages and rising prices.[3] During the past 2 years, while natural gas prices were increasing steadily and petroleum prices remained constant or declined, many firms switched to petroleum. However, natural gas remained the preferred fuel for some industries, as fuel oils require greater boiler maintenance and often require outlays of capital for equipment necessary to control sulfur emissions. Some switching also occurred from petroleum to natural gas, for economic reasons. This was evident during 1981, when unattractive petroleum prices caused industries to switch from oil to natural gas. Companies equipped with dual-fuel boilers burned the most economical fuels available, and some further reduced fuel costs by blending industrial waste materials with petroleum fuel stocks.

Figure 2. Industrial Energy Consumption



Source: Energy Information Administration, "Monthly Energy Review," December 1983 [3]. Estimates for 1983 are based on preliminary data.

During 1983, petroleum continued to be one of the primary fuels utilized by industry. It accounted for 30 percent of the sector's energy consumption. This was a slightly smaller portion of total energy consumed by the industrial sector than in the peak demand year of 1979. However, in 1983, industry used more petroleum than natural gas. Gas consumption declined steadily in the industrial sector during the past decade; natural gas accounted for an estimated 26 percent of the industrial sector's needs during 1983.

---

[2] Energy Information Administration, *Petroleum Supply Monthly*, DOE/EIA-0109 (83/12[3]), December [3] 1983.

[3] While EIA does not collect data on industrial dual-fuel facilities, the growing use of multi-fuel boilers has been widely reported in the press. For example, see a review of dual-fuel boiler use that appeared on page 1 of the *Energy User News* on February 27, 1984. In the past, *Energy User News* has also reported preliminary findings of an industrial user survey concerned with fuel switching and dual-fuel boiler use conducted by the Ohio Manufacturer's Association and the State's Department of Energy, (January 31, 1983, p. 1); a major auto manufacturer's installation of dual-fuel boilers at eight Michigan plants (April 4, 1983, p. 1); the Michigan Public Service Commissions' approval of lower Southeastern Michigan Gas Company rates for dual-fuel users (January 30, 1984, p. 35); and a technology report on multi-fuel boilers including suppliers (April 11, 1983, p. 1). Similar reports have appeared in other trade journals.

Liquefied petroleum gases (LPG's),[4] distillate and residual fuel oils, and numerous other petroleum products are used as fuels for heat, power, and as feedstocks for industry. LPG's made up nearly one-third of the petroleum used in the industrial sector during 1983 (see Figure 3). Distillate and residual fuel oils were the second and third most important petroleum products consumed by industry, respectively. Historically, more than half of the petroleum products used by industry are consumed in Petroleum Administration for Defense Districts II and III,[5] which include the Midcontinent and Gulf Coast States. Major petroleum and natural gas liquids production, refining, and petrochemical centers are located in these areas.

Liquefied Petroleum Gases

LPG consumption in all sectors of the U.S. economy peaked at 1.6 million barrels per day in 1979 and has averaged 1.5 million barrels per day each year since then. Together, LPG's are the leading petroleum products utilized by the industrial sector. They accounted for nearly one out of every three barrels of petroleum products consumed by that sector during 1983, and exceeded the industrial sector's combined consumption of distillate and residual fuel oils. Industrial consumption of LPG's averaged an estimated 1.2 million barrels per day during 1983, essentially unchanged from the previous year, but down about 9 percent from the record 1.3 million barrels per day in 1979. This was mainly in response to the lower industrial activities caused by the economic downturn. Wholesale propane prices averaged $29.50 per barrel for the first 11 months of 1983,[6] more than double the $12.39 per barrel average for the year 1979.[7]

Industrial uses of LPG's include:

- Feedstock for petrochemicals and for the manufacture of gasoline.
- Fuel for internal-combustion engines and for in-plant processing equipment.
- Fuel for space heating, animal incubators, grain dryers, and other farm equipment.

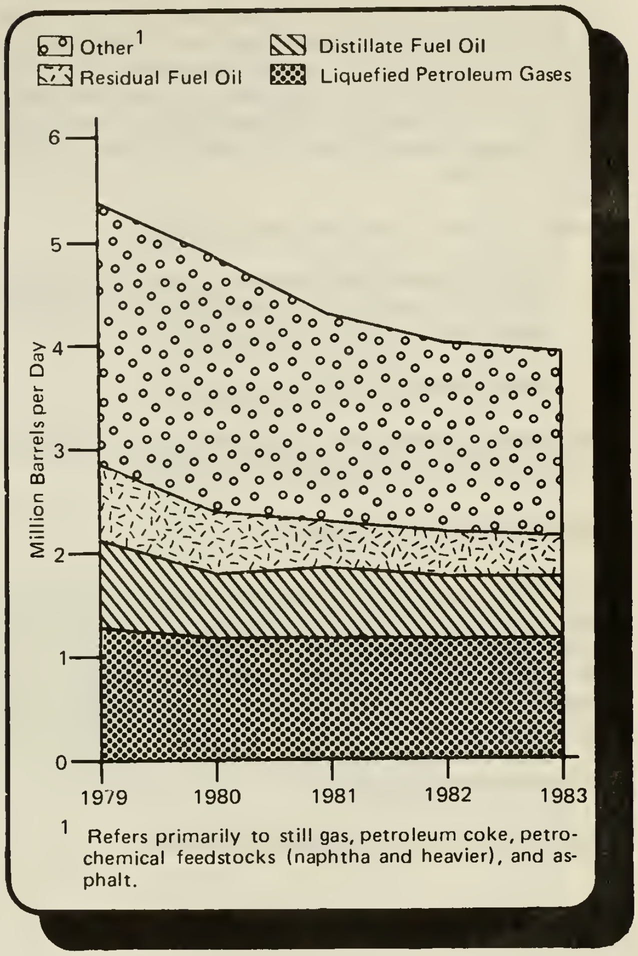
More than half of all industrial use of LPG's takes place in Illinois, Louisiana, Ohio, and Texas.

EIA's *Petroleum Supply Monthly*, November 1983, included further information on LPG terminology, usage, and market trends.

Distillate Fuel Oil

Estimated consumption of distillate fuel oil by the industrial sector averaged about 600,000 barrels per day during 1983, down about 30 percent from the peak of 830,000 barrels per day in 1979, mainly in response to price increases, conservation efforts, and fuel switching. Preliminary data show that the average wholesale price for No. 2 heating oil was $35.29 per barrel during 1983, compared with $22.26 during 1979.

Figure 3. Industrial Consumption of Petroleum Products



1 Refers primarily to still gas, petroleum coke, petrochemical feedstocks (naphtha and heavier), and asphalt.

Source: Energy Information Administration, "State Energy Data Report, 1960 through 1981," and "1982 Annual Energy Review." Estimates for 1983 are based on preliminary data.

Industrial uses of distillate fuel oil include:

- Fuel for stationary power sources in plants and factories for manufacturing processes and for the generation of steam and electricity.
- Fuel for heavy construction equipment.
- Fuel for space and water heating.

Texas, California, and Louisiana continued to be the leading States in distillate fuel oil consumption for industrial purposes.

---

[4] Propane, propylene, butane, butylene, butane-propane mixtures, ethane, ethane-propane mixtures, and isobutane produced at refineries and natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

[5] Energy Information Administration, *State Energy Data Report 1960 through 1981*, DOE/EIA-0214 (81), June 1983.

[6] Energy Information Administration, *Petroleum Marketing Monthly*, DOE/EIA-0380 (83/04-12[2]), April-December 1983 [2].

[7] Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035 (83/12[3]), December 1983 [3].

LIBRARY U. OF I. URBANA-CHAMPAIGN

Residual Fuel Oil

Consumption of residual fuel oil by the industrial sector fell sharply from 720,000 barrels per day in 1979 to an estimated 400,000 barrels per day in 1983, as low levels of economic activity were accompanied by price-induced fuel switching to natural gas and other competing fuels. The average wholesale price of residual fuel oil increased steadily from $17.66 per barrel in 1979 to $27.31 in 1983.

Industrial uses of residual fuel oil include:

- Fuel for stationary sources of power for manufacturing processes and generation of steam and electricity in plants and factories.

- Fuel for space and water heating.

The leading States for industrial use of residual fuel oils are Texas, Louisiana, and California.

Other Petroleum Products

Significant quantities of asphalt, kerosene, petroleum coke, and other petroleum products continued to be important fuels and feedstocks for U.S. industries. Industrial consumption of these products averaged an estimated 1.8 million barrels per day during 1983, accounting for nearly one-half of the petroleum used by industry. This was some 400,000 barrels per day below the consumption rate in 1979.

Industrial uses of these products include:

- **Asphalt.** Feedstock for paving and construction materials, floor and roofing coverings, and other protective applications.

- **Kerosene.** Feedstock for the manufacture of insecticides and paints, and fuel for space heating and crop drying.

- **Petroleum coke.** Feedstock for the manufacture of chemicals and electrodes, and fuel for metal refining.

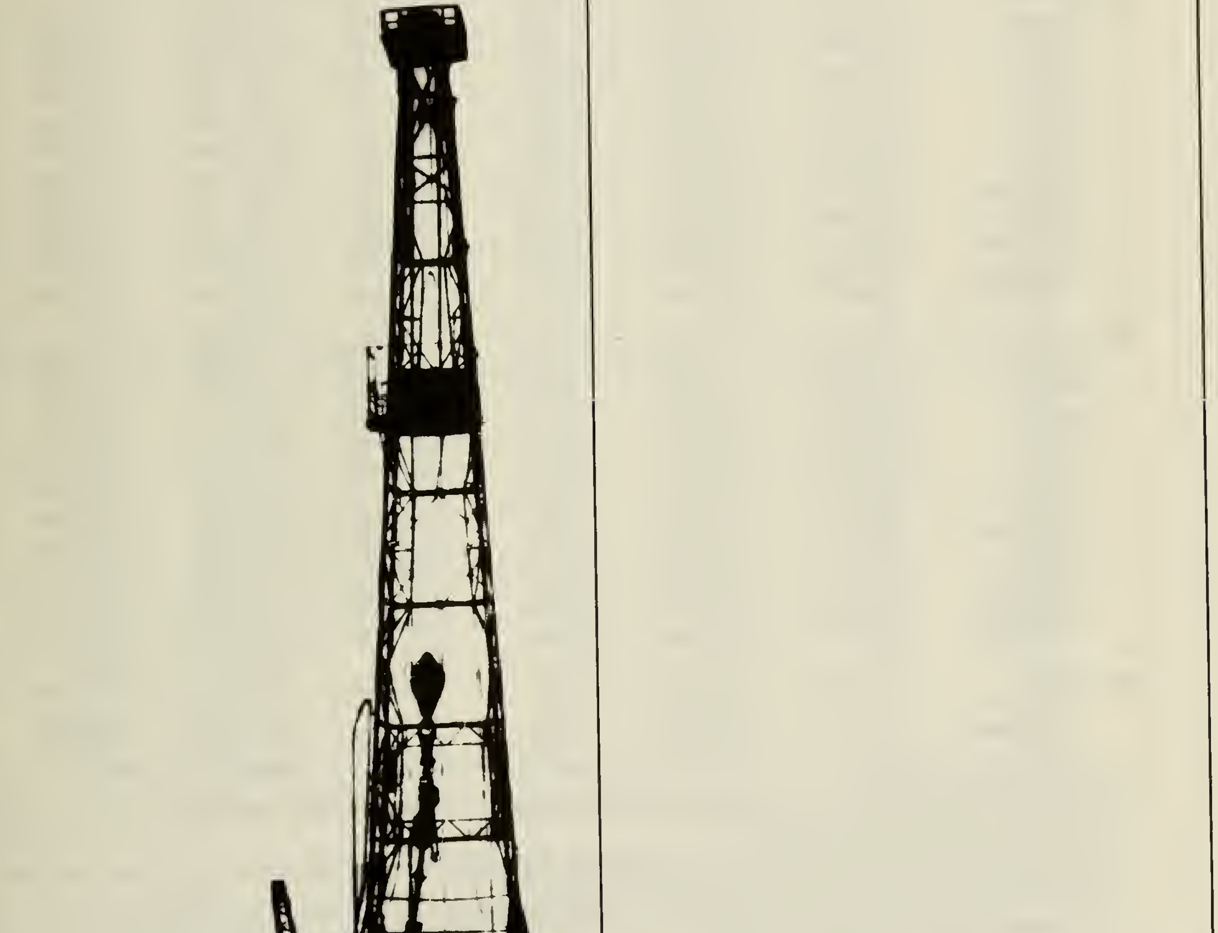
Texas, Ohio, and Illinois continue to be the leading consuming States for these products.

Outlook

Manufacturing activities in the United States are increasing: industrial production is rising and reducing idle industrial capacity. EIA's February 1984 *Short-Term Energy Outlook* was based on an assumed manufacturing increase of about 10 percent in 1984, along with an increase in the GNP of about 5 percent. This improvement in industrial activity is expected to increase petroleum consumption about 200,000 barrels per day during 1984, as attractive prices encourage increased use of petroleum fuels and feedstocks. The anticipated industrial growth is projected to result in increased consumption of all major petroleum products.

Price-induced fuel switching capability of industrial energy users is expected to continue and possibly intensify during 1984, as firms add dual-fuel capabilities to protect against fuel shortages and minimize the impact of fuel price increases.

Summary Statistics



LIBRARY U. OF I. URBANA-CHAMPAIGN

Crude Oil[1] and Petroleum Products Overview

		Field Production			Stock Withdrawal[2]			Ending Stocks[3]
		Total Domestic[4]	Crude Oil	Natural Gas Plant Production	Crude Oil[5]	Petroleum Products	Petroleum Products Supplied	Crude Oil[5] and Petroleum Products
		Thousand Barrels per Day						Million Barrels
1973	**AVERAGE**	**10,975**	**9,208**	**1,738**	**11**	**-146**	**17,308**	**1,008**
1974	**AVERAGE**	**10,498**	**8,774**	**1,688**	**-62**	**-117**	**16,653**	[8] **1,074**
1975	**AVERAGE**	**10,045**	**8,375**	**1,633**	[8] **-17**	[8] **-145**	**16,322**	**1,133**
1976	**AVERAGE**	**9,774**	**8,132**	**1,603**	**-39**	**96**	**17,461**	**1,112**
1977	**AVERAGE**	**9,913**	**8,245**	**1,618**	**-170**	**-378**	**18,431**	**1,312**
1978	**AVERAGE**	**10,328**	**8,707**	**1,567**	**-78**	**172**	**18,847**	**1,278**
1979	**AVERAGE**	**10,179**	**8,552**	**1,584**	**-148**	**-25**	**18,513**	**1,341**
1980	**AVERAGE**	**10,214**	**8,597**	**1,573**	**-98**	**-42**	**17,056**	[8] **1,392**
1981	**AVERAGE**	**10,230**	**8,572**	**1,609**	[8] **-290**	[8] **130**	**16,058**	1,484
1982	January	10,128	8,509	1,578	-401	1,298	16,124	1,456
	February	10,312	8,702	1,563	-242	1,230	16,001	1,428
	March	10,284	8,667	1,572	121	1,047	15,560	1,392
	April	10,188	8,591	1,542	-37	1,583	16,046	1,346
	May	10,244	8,683	1,518	29	-66	14,847	1,347
	June	10,212	8,646	1,511	40	-489	14,998	1,360
	July	10,229	8,658	1,513	-147	-926	14,821	1,393
	August	10,215	8,634	1,524	-440	-44	14,839	1,408
	September	10,279	8,701	1,518	263	-447	15,022	1,414
	October	10,299	8,701	1,530	-548	-47	14,859	1,432
	November	10,359	8,697	1,609	-398	-361	15,009	1,455
	December	10,276	8,598	1,628	128	688	15,487	[8] 1,430
	AVERAGE	**10,252**	**8,649**	**1,550**	**-136**	**283**	**15,296**	
1983	January	10,356	8,634	1,668	-567	[8] 865	14,765	1,453
	February	10,298	8,660	1,585	-382	1,128	14,772	1,432
	March	10,259	8,677	1,544	56	1,765	15,484	1,375
	April	10,229	8,686	1,502	-438	431	14,779	1,376
	May	10,231	8,682	1,483	68	-759	14,250	1,397
	June	10,262	8,676	1,514	-163	-242	15,281	1,409
	July	10,237	8,647	1,536	118	-922	14,913	1,434
	August	10,257	8,653	1,561	-781	-289	15,366	1,467
	Sepptember	10,323	8,666	1,598	-191	-634	15,396	1,492
	October	10,317	8,654	1,604	-180	-456	14,947	1,512
	November	10,310	8.624	1,636	182	-128	15,533	1,510
	December	10,188	8,612	1,533	-306	2,150	16,691	1,453
	AVERAGE	**10,272**	**8,656**	**1,564**	**-215**	**239**	**15,184**	
1984	January*	10,282	8,659	1,585	R -342	R 1,085	R 16,726	R 1,430
	February**	NA	8,726	NA	*51*	*-749*	*15,386*	*1,442*
	AVERAGE	**NA**	**8,691**	**NA**	**-152**	**199**	**16,078**	

---

[1] Includes lease condensate.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] Stocks are totals as of end of period.

[4] Includes crude oil, natural gas plant production, other hydrocarbons, and alcohol.

[5] Includes stocks located in the Strategic Petroleum Reserve.

[6] Includes crude oil for storage in the Strategic Petroleum Reserve.

[7] Net Imports equal Imports minus Exports.

[8] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

Footnotes continued on following page.

Crude Oil[1] and Petroleum Products Overview (continued)

		Imports			Exports		
		Total	Crude Oil[6]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net[7] Imports
		Thousand Barrels per Day						
1973	**AVERAGE**	**6,256**	**3,244**	**3,012**	**231**	**2**	**229**	**6,025**
1974	**AVERAGE**	**6,112**	**3,477**	**2,635**	**221**	**3**	**218**	**5,892**
1975	**AVERAGE**	**6,056**	**4,105**	**1,951**	**209**	**6**	**204**	**5,846**
1976	**AVERAGE**	**7,313**	**5,287**	**2,026**	**223**	**8**	**215**	**7,090**
1977	**AVERAGE**	**8,807**	**6,615**	**2,193**	**243**	**50**	**193**	**8,565**
1978	**AVERAGE**	**8,363**	**6,356**	**2,008**	**362**	**158**	**204**	**8,002**
1979	**AVERAGE**	**8,456**	**6,519**	**1,937**	**472**	**235**	**237**	**7,984**
1980	**AVERAGE**	**6,909**	**5,263**	**1,646**	**544**	**287**	**258**	**6,365**
1981	**AVERAGE**	**5,996**	**4,396**	**1,599**	**595**	**228**	**367**	**5,401**
1982	January	5,332	3,693	1,639	829	238	591	4,503
	February	4,807	2,990	1,817	804	304	499	4,003
	March	4,484	2,874	1,610	882	321	561	3,602
	April	4,378	2,849	1,529	786	174	611	3,593
	May	4,811	3,309	1,503	803	262	542	4,008
	June	5,327	3,836	1,491	703	94	609	4,624
	July	5,890	4,248	1,642	741	229	512	5,149
	August	5,244	3,851	1,392	858	304	554	4,386
	September	5,414	3,636	1,778	791	184	606	4,624
	October	5,306	3,670	1,636	932	270	662	4,374
	November	5,744	3,862	1,882	786	262	524	4,958
	December	4,606	3,000	1,605	860	193	667	3,746
	AVERAGE	**5,113**	**3,488**	**1,625**	**815**	**236**	**579**	**4,298**
1983	January	4,372	2,938	1,434	973	117	856	3,399
	February	3,691	2,268	1,423	865	262	603	2,825
	March	3,629	2,232	1,398	801	174	627	2,829
	April	4,744	3,154	1,590	809	88	721	3,935
	May	4,898	3,234	1,664	848	280	568	4,049
	June	5,218	3,502	1,716	774	144	630	4,443
	July	5,690	3,868	1,822	571	145	426	5,119
	August	6,036	4,174	1,863	663	172	491	5,373
	Sepptember	6,088	4,221	1,867	684	177	507	5,403
	October	5,256	3,446	1,810	576	140	436	4,680
	November	5,168	3,312	1,856	679	186	494	4,489
	December	4,986	3,214	1,772	639	95	544	4,348
	AVERAGE	**4,988**	**3,303**	**1,686**	**739**	**164**	**575**	**4,249**
1984	January*	R 5,347	R 3,029	R 2,318	575	153	422	4,772
	February**	*5,275*	*3,016*	*2,258*	NA	NA	NA	NA
	AVERAGE	**5,312**	**3,023**	**2,289**	**NA**	**NA**	**NA**	**NA**

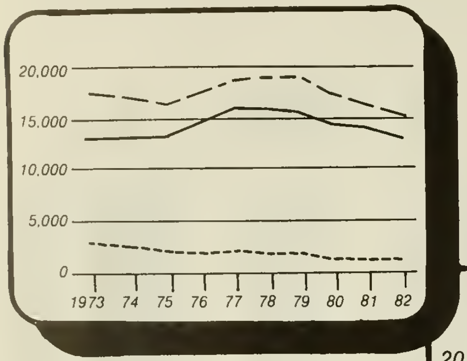
Footnotes continued.
* See Explanatory Note 9.1.
** Italics denote estimates based upon prelimanary data. See Explanatory Note 8.
R = Revised data. NA = Not available.
Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.
Source: See the last page of this section.

LIBRARY U. OF I. URBANA-CHAMPAIGN

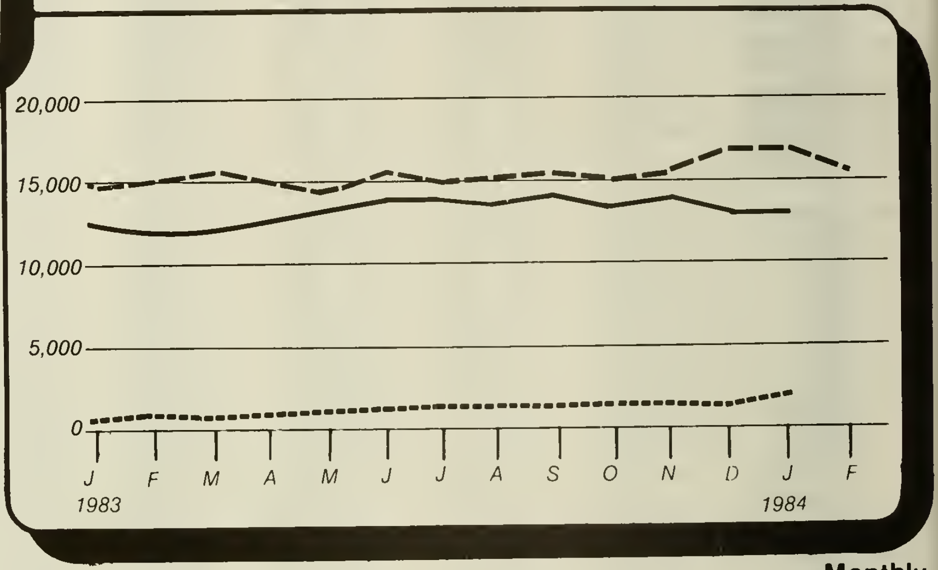
Petroleum Overview

(Thousand Barrels Per Day)

Legend
- — — Petroleum Product Supplied
- —— Refinery Production
- ------ Net Petroleum Product Imports



Annual

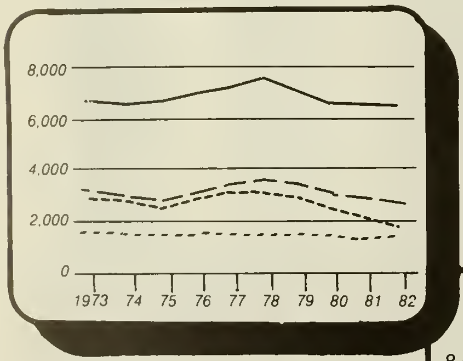


Monthly

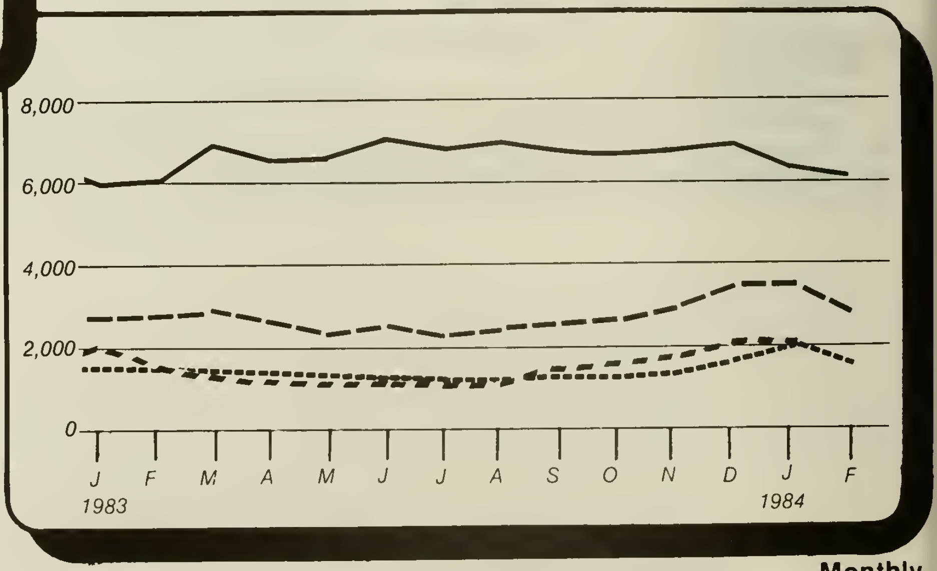
Petroleum Products Supplied

(Thousand Barrels Per Day)

Legend
- —— Motor Gasoline
- — — Distillate Fuel Oil
- ------ Residual Fuel Oil
- ▰ ▰ ▰ LPG[1]



Annual

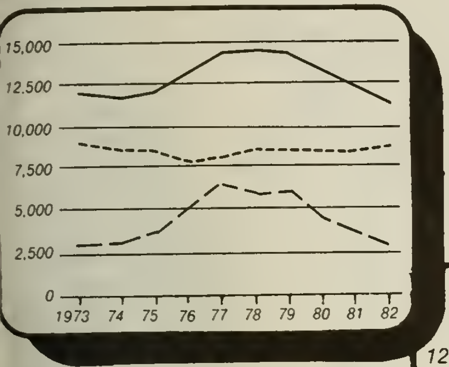


Monthly

[1] Liquefied Petroleum Gases

Crude Oil Supply and Disposition

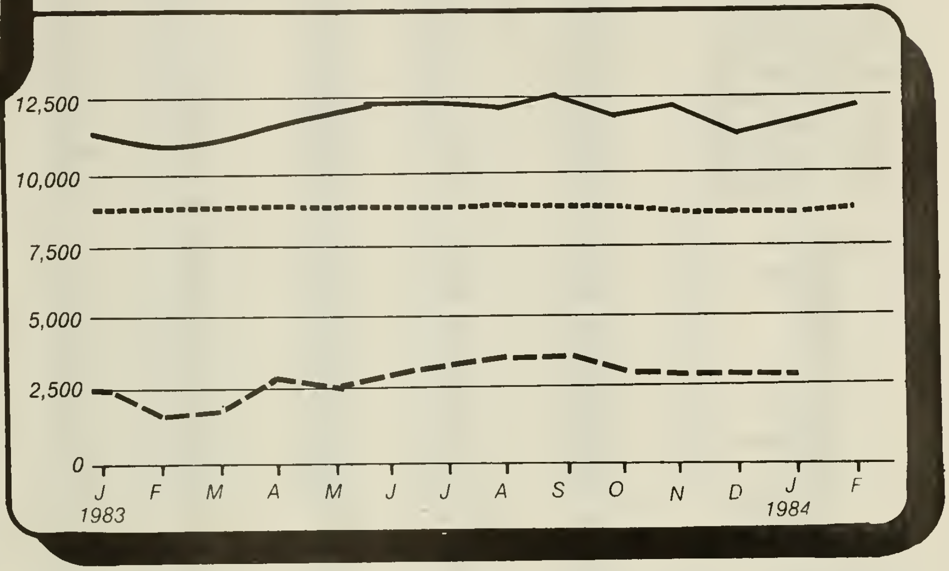
(Thousand Barrels Per Day)



Legend
— Refinery Inputs
----- Domestic Crude Oil Production
— — Net Imports¹

Annual

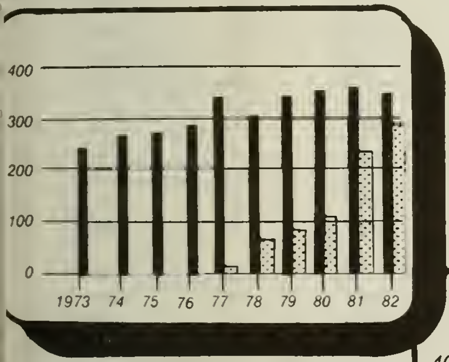
Excludes SPR Imports



Monthly

Crude Oil Ending Stocks

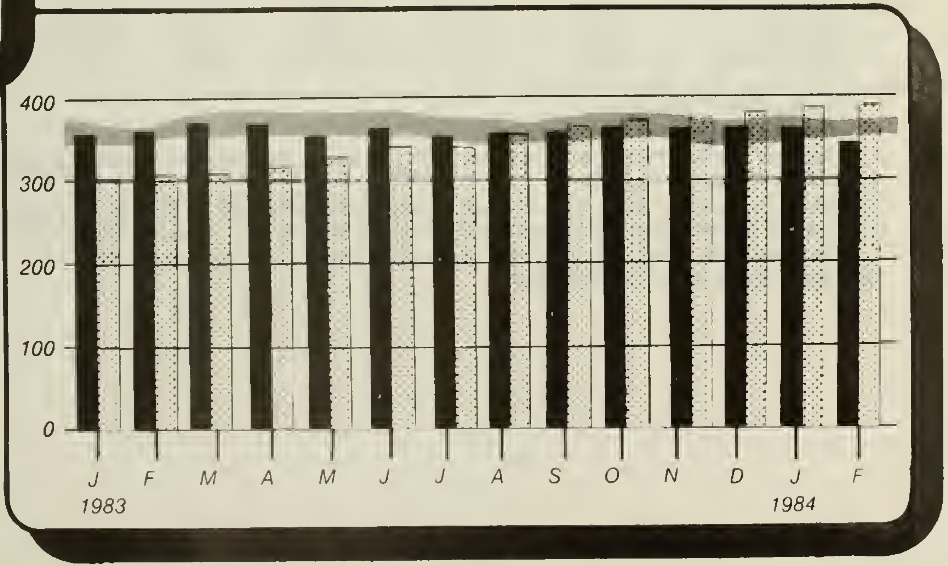
Million Barrels)



Legend
■ Other Primary
▨ SPR
▒ Average Stock Range¹

\nnual

Level and width of Average Stock anges for crude oil is based on 3 ears of data, July 80-July 83. See xplanatory Note 6.



Monthly

LIBRARY U. OF I. URBANA-CHAMPAIGN

Crude Oil[1] Supply and Disposition

	Supply							
	Field Production		Imports			Stock Withdrawal[3]		
	Total Domestic	Alaskan	Total	SPR[4]	Other	SPR[4]	Other	Unaccounted for Crude Oil
	Thousand Barrels per Day							
1973 AVERAGE	**9,208**	**198**	**3,244**		**3,244**		**11**	**3**
1974 AVERAGE	**8,774**	**193**	**3,477**		**3,477**		**-62**	**-25**
1975 AVERAGE	**8,375**	**191**	**4,105**		**4,105**		**-17**	**17**
1976 AVERAGE	**8,132**	**173**	**5,287**		**5,287**		**-39**	**77**
1977 AVERAGE	**8,245**	**464**	**6,615**	**21**	**6,594**	**-20**	**-150**	**-6**
1978 AVERAGE	**8,707**	**1,229**	**6,356**	**162**	**6,195**	**-163**	**84**	**-57**
1979 AVERAGE	**8,552**	**1,401**	**6,519**	**67**	**6,452**	**-67**	**-81**	**-11**
1980 AVERAGE	**8,597**	**1,617**	**5,263**	**44**	**5,219**	**-45**	**-52**	**34**
1981 AVERAGE	**8,572**	**1,609**	**4,396**	**256**	**4,141**	**-336**	[6] **46**	**83**
1982 January	8,509	1,705	3,693	170	3,523	-159	-242	101
February	8,702	1,707	2,990	159	2,830	-213	-29	156
March	8,667	1,696	2,874	185	2,689	-235	357	2
April	8,591	1,691	2,849	190	2,659	-233	196	231
May	8,683	1,707	3,309	204	3,105	-176	205	111
June	8,646	1,665	3,836	105	3,732	-105	144	133
July	8,658	1,710	4,248	97	4,150	-97	-50	-20
August	8,634	1,697	3,851	208	3,643	-208	-232	189
September	8,701	1,705	3,636	139	3,497	-143	406	-210
October	8,701	1,706	3,670	216	3,454	-216	-332	249
November	8,697	1,676	3,862	180	3,683	-179	-219	-124
December	8,598	1,682	3,000	124	2,877	-125	252	35
AVERAGE	**8,649**	**1,696**	**3,488**	**165**	**3,323**	**-174**	**38**	**71**
1983 January	8,634	1,698	2,938	219	2,720	-219	-348	238
February	8,660	1,725	2,268	197	2,071	-197	-185	423
March	8,677	1,726	2,232	201	2,031	-184	240	134
April	8,686	1,710	3,154	205	2,949	-197	-241	191
May	8,682	1,710	3,234	289	2,945	-293	362	148
June	8,676	1,710	3,502	190	3,312	-188	25	480
July	8,647	1,705	3,868	274	3,594	-264	382	-74
August	8,653	1,712	4,174	350	3,823	-358	-423	333
September	8,666	1,722	4,221	309	3,912	-307	116	-6
October	8,654	1,731	3,446	202	3,244	-201	21	69
November	8,624	1,713	3,312	171	3,141	-135	317	137
December	8,612	1,713	3,214	193	3,021	-252	-55	-141
AVERAGE	**8,656**	**1,715**	**3,303**	**234**	**3,069**	**-234**	**19**	**159**
1984 January*	8,659	1,741	R 3,029	R 200	R 2,829	R -173	R -169	451
February**	8,726	1,740	*3,016*	*87*	*2,930*	*-87*	*138*	NA
AVERAGE	**8,691**	**1,741**	**3,023**	**145**	**2,878**	**-131**	**-21**	**NA**

---

[1] Includes lease condensate.
[2] Stocks are totals as of end of period.
[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[4] Strategic Petroleum Reserve.
[5] Begining in January 1983, crude oil used directly as fuel is shown as product supplied.
[6] Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels. See Explanatory Note 11.
Footnotes continued on following page.

Crude Oil[1] Supply and Disposition (continued)

	Supply	Disposition				Ending Stocks[2]		
	Crude Used Directly[5]	Crude Losses	Refinery Inputs	Exports	Products Supplied[5]	Total Crude Oil	SPR[4]	Other Primary
	Thousand Barrels per Day					Million Barrels		
1973 AVERAGE	**-19**	**13**	**12,431**	**2**	**NA**	**242**		**242**
1974 AVERAGE	**-15**	**13**	**12,133**	**3**	**NA**	**265**		**265**
1975 AVERAGE	**-17**	**13**	**12,442**	**6**	**NA**	**271**		**271**
1976 AVERAGE	**-18**	**15**	**13,416**	**8**	**NA**	**285**		**285**
1977 AVERAGE	**-14**	**16**	**14,602**	**50**	**NA**	**348**	**7**	**340**
1978 AVERAGE	**-14**	**16**	**14,739**	**158**	**NA**	**376**	**67**	**309**
1979 AVERAGE	**-13**	**16**	**14,648**	**235**	**NA**	**430**	**91**	**339**
1980 AVERAGE	**-13**	**15**	**13,481**	**287**	**NA**	[6] 466	**108**	[6] 358
1981 AVERAGE	**-58**	**5**	**12,470**	**228**	NA	594	230	363
1982 January	-63	3	11,599	238	NA	606	235	371
February	-64	2	11,236	304	NA	613	241	372
March	-63	5	11,276	321	NA	609	249	361
April	-65	3	11,392	174	NA	610	256	355
May	-62	3	11,806	262	NA	609	261	348
June	-60	7	12,494	94	NA	608	264	344
July	-60	3	12,446	229	NA	613	267	346
August	-57	2	11,871	304	NA	626	274	353
September	-56	4	12,146	184	NA	619	278	341
October	-51	2	11,749	270	NA	636	285	351
November	-51	1	11,724	262	NA	648	290	358
December	-53	1	11,514	193	NA	644	294	350
AVERAGE	**-59**	**3**	**11,774**	**236**	NA			
1983 January	NA	2	11,070	117	54	661	301	361
February	NA	3	10,635	262	69	672	306	366
March	NA	2	10,854	174	70	670	312	359
April	NA	2	11,436	88	68	684	318	366
May	NA	1	11,789	280	63	681	327	355
June	NA	1	12,287	144	64	686	332	354
July	NA	2	12,347	145	65	683	341	342
August	NA	1	12,141	172	64	707	352	355
September	NA	1	12,445	177	66	713	361	352
October	NA	1	11,784	140	63	718	367	351
November	NA	2	12,003	186	64	713	371	341
December	NA	1	11,217	95	67	722	379	343
AVERAGE	**NA**	**1**	**11,672**	**164**	**65**			
1984 January*	NA	1	R 11,579	153	64	R 733	R 384	R 348
February**	NA	NA	*12,116*	NA	NA	*727*	*387*	*340*
AVERAGE	**NA**	**NA**	**11,838**	**NA**	**NA**			

Footnotes continued.

* See Explanatory Note 9.2.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available.

Note: Geographic coverage is the 50 United States and the District of Columbia. Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Crude Oil and Petroleum Product Imports

	Imports from OPEC Sources[1]										
	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indo-nesia	Iran	Nigeria	Vene-zuela	Other OPEC[2]	Total OPEC	Total Arab OPEC[3]
	Thousand Barrels per Day										
1973 AVERAGE	**136**	**164**	**486**	**71**	**213**	**223**	**459**	**1,135**	**106**	**2,993**	**915**
1974 AVERAGE	**190**	**4**	**461**	**74**	**300**	**469**	**713**	**979**	**88**	**3,280**	**752**
1975 AVERAGE	**282**	**232**	**715**	**117**	**390**	**280**	**762**	**702**	**122**	**3,601**	**1,383**
1976 AVERAGE	**432**	**453**	**1,230**	**254**	**539**	**298**	**1,025**	**700**	**134**	**5,066**	**2,424**
1977 AVERAGE	**559**	**723**	**1,380**	**335**	**541**	**535**	**1,143**	**690**	**287**	**6,193**	**3,185**
1978 AVERAGE	**649**	**654**	**1,144**	**385**	**573**	**555**	**919**	**645**	**226**	**5,751**	**2,963**
1979 AVERAGE	**636**	**658**	**1,356**	**281**	**420**	**304**	**1,080**	**690**	**212**	**5,637**	**3,056**
1980 AVERAGE	**488**	**554**	**1,261**	**172**	**348**	**9**	**857**	**481**	**130**	**4,300**	**2,551**
1981 AVERAGE	**311**	**319**	**1,129**	**81**	**366**	**0**	**620**	**406**	**90**	**3,323**	**1,848**
1982 January	254	161	877	111	289	0	663	376	128	2,859	1,403
February	139	92	693	89	244	0	584	355	102	2,297	1,054
March	91	37	555	155	200	0	522	399	91	2,051	860
April	85	0	511	122	215	0	427	426	85	1,871	740
May	179	0	601	116	236	0	222	422	54	1,830	897
June	115	0	593	94	215	72	537	361	110	2,096	820
July	159	0	660	108	327	69	910	356	95	2,685	965
August	181	0	489	133	271	27	574	299	133	2,107	818
September	179	0	432	57	191	21	477	518	69	1,943	677
October	249	7	494	61	242	108	313	504	106	2,084	810
November	247	14	489	47	283	34	479	528	115	2,235	797
December	155	0	237	12	265	88	462	399	73	1,690	421
AVERAGE	**170**	**26**	**552**	**92**	**248**	**35**	**514**	**412**	**97**	**2,146**	**854**
1983 January	204	0	282	47	255	43	186	324	43	1,384	533
February	104	0	214	9	217	0	92	371	28	1,035	326
March	63	0	103	0	138	0	121	425	173	1,023	183
April	228	0	180	(s)	210	0	186	508	125	1,438	409
May	284	0	122	12	324	37	352	444	69	1,645	419
June	300	0	175	40	502	38	402	335	146	1,938	515
July	282	0	182	58	464	112	525	431	187	2,240	599
August	370	0	426	45	416	213	464	477	230	2,641	866
September	413	0	587	21	516	86	324	472	208	2,627	1,074
October	261	0	638	16	368	12	307	337	169	2,108	938
November	165	0	545	56	318	21	214	435	135	1,891	789
December	141	0	569	45	291	9	329	408	163	1,957	823
AVERAGE	**235**	**0**	**336**	**29**	**335**	**48**	**294**	**414**	**140**	**1,832**	**625**
1984 January	242	0	463	114	278	0	243	547	51	1,939	828

---

[1] Excludes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

[2] Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

[3] Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

(s)

Footnotes continued on following page.

Crude Oil and Petroleum Product Imports (continued)

	Imports from Non-OPEC Sources [4]										
	Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non OPEC	Total Non OPEC	Total Imports
	Thousand Barrels per Day										
1973 AVERAGE	**174**	**1,325**	**16**	**585**	**255**	**15**	**99**	**329**	**465**	**3,263**	**6,256**
1974 AVERAGE	**164**	**1,070**	**8**	**511**	**251**	**8**	**90**	**391**	**340**	**2,832**	**6,112**
1975 AVERAGE	**152**	**846**	**71**	**332**	**242**	**14**	**90**	**406**	**300**	**2,454**	**6,056**
1976 AVERAGE	**118**	**599**	**87**	**275**	**274**	**31**	**88**	**422**	**353**	**2,247**	**7,313**
1977 AVERAGE	**171**	**517**	**179**	**211**	**289**	**126**	**105**	**466**	**550**	**2,614**	**8,807**
1978 AVERAGE	**160**	**467**	**318**	**229**	**253**	**180**	**94**	**429**	**484**	**2,613**	**8,363**
1979 AVERAGE	**147**	**538**	**439**	**231**	**190**	**202**	**92**	**431**	**548**	**2,819**	**8,456**
1980 AVERAGE	**78**	**455**	**533**	**225**	**176**	**176**	**88**	**388**	**491**	**2,609**	**6,909**
1981 AVERAGE	**74**	**447**	**522**	**197**	**133**	**375**	**62**	**327**	**534**	**2,672**	**5,996**
1982 January	58	513	425	179	106	346	62	334	452	2,474	5,332
February	67	537	476	221	120	181	38	362	508	2,510	4,807
March	43	437	503	189	118	294	62	307	480	2,433	4,484
April	82	360	476	184	166	247	36	266	690	2,507	4,378
May	77	419	766	152	95	516	47	302	607	2,981	4,811
June	32	481	797	148	129	557	58	322	708	3,231	5,327
July	64	536	783	158	118	433	38	376	698	3,204	5,890
August	80	443	853	145	106	520	24	317	650	3,137	5,244
September	92	493	897	195	89	631	51	278	746	3,472	5,414
October	45	459	682	148	109	666	52	262	801	3,222	5,306
November	51	553	860	212	90	623	81	334	706	3,508	5,744
December	88	561	689	174	102	438	48	336	480	2,916	4,606
AVERAGE	**65**	**482**	**685**	**175**	**112**	**456**	**50**	**316**	**627**	**2,968**	**5,113**
1983 January	68	536	849	218	73	315	40	299	588	2,988	4,372
February	92	592	722	179	81	193	50	192	554	2,655	3,691
March	86	488	760	187	78	240	43	162	563	2,606	3,629
April	167	452	981	216	85	421	20	183	781	3,306	4,744
May	135	501	944	153	108	483	42	235	651	3,252	4,898
June	137	576	831	181	120	424	48	252	712	3,281	5,218
July	69	633	849	191	103	369	37	364	836	3,450	5,690
August	142	540	891	194	90	461	40	313	725	3,395	6,036
September	137	523	832	251	82	472	33	308	822	3,461	6,088
October	164	539	771	172	106	414	48	370	565	3,149	5,256
November	143	542	717	144	110	334	55	440	793	3,278	5,168
December	119	592	718	153	113	429	22	271	613	3,030	4,986
AVERAGE	**122**	**542**	**822**	**187**	**96**	**381**	**40**	**283**	**684**	**3,156**	**4,988**
1984 January	152	624	705	277	54	382	53	390	772	3,408	5,347

Footnotes continued.

[4] Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

(^{s}) = Less than 500 barrels per day.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

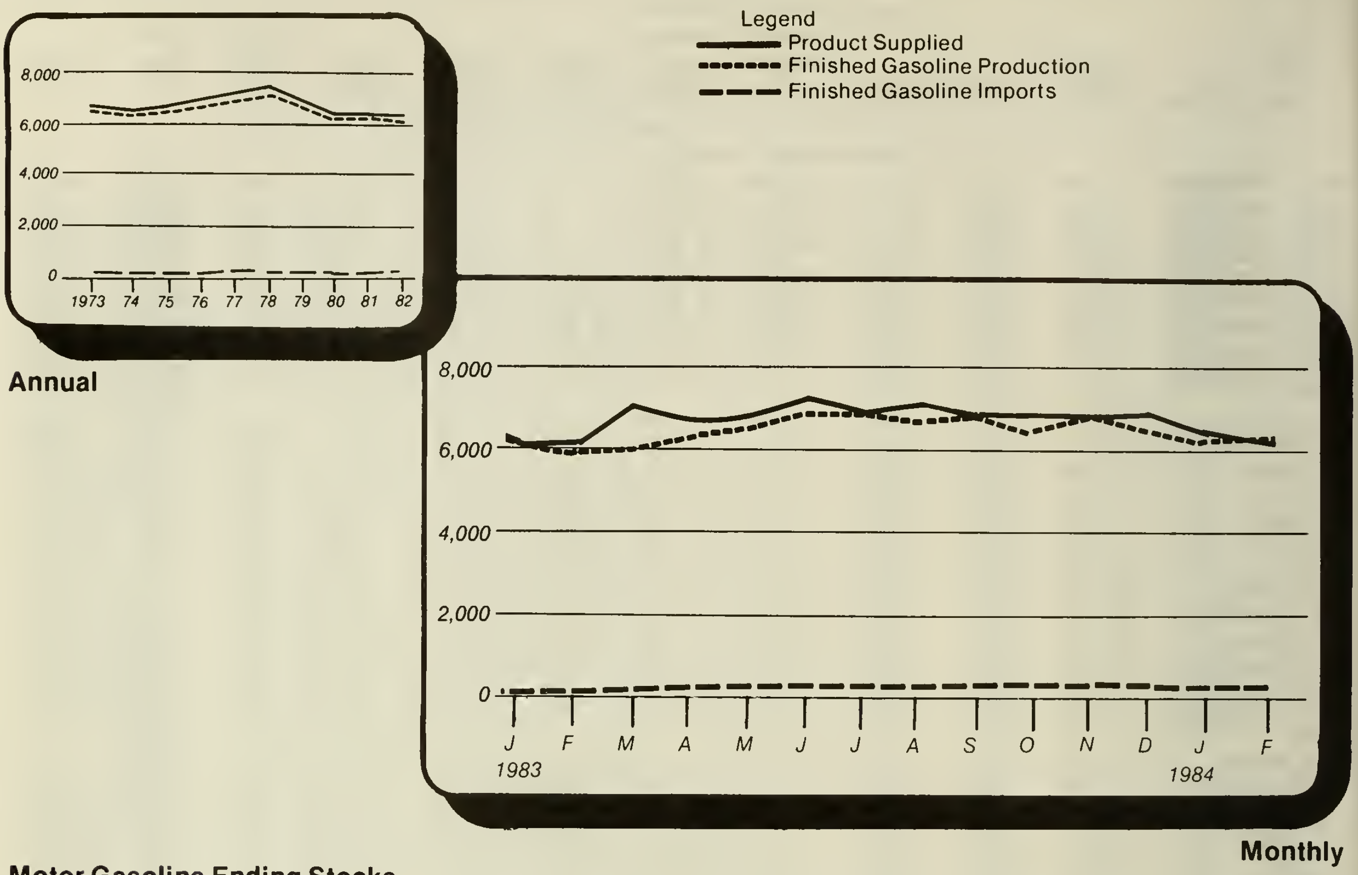
Total may not equal sum of components due to independent rounding.

Geographic coverage: The 50 United States and the District of Columbia.

Source: See the last page of this section.

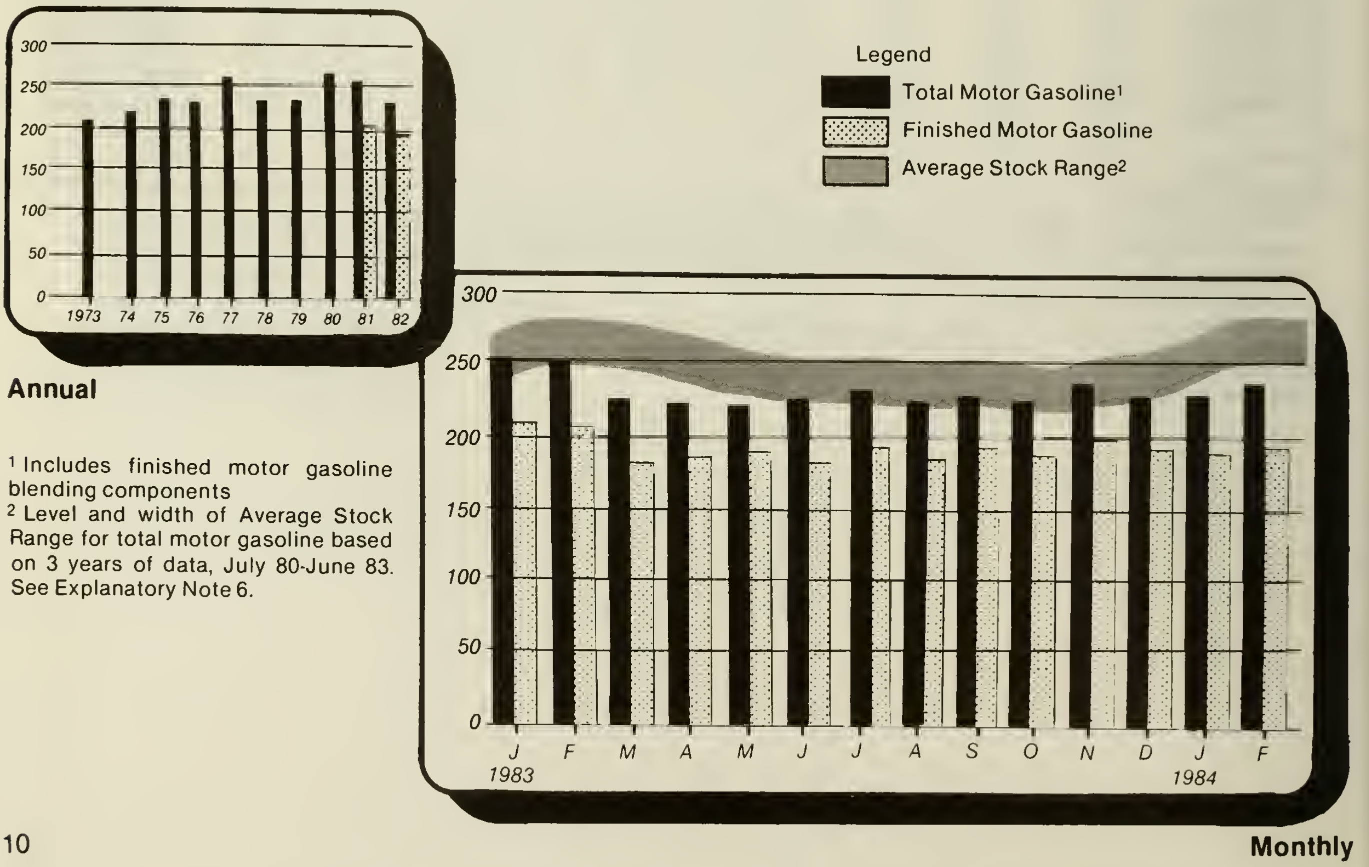
Motor Gasoline Supply and Disposition

(Thousand Barrels Per Day)



Motor Gasoline Ending Stocks

(Million Barrels)



[1] Includes finished motor gasoline blending components

[2] Level and width of Average Stock Range for total motor gasoline based on 3 years of data, July 80-June 83. See Explanatory Note 6.

inished Motor Gasoline Supply and Disposition

	Supply			Disposition				Ending Stocks[1]	
					Products Supplied				
	Total Production	Imports[2]	Stock Withdrawal[2] [3]	Exports	Total	Unleaded[4]	Unleaded	Total Motor Gasoline[5]	Finished Motor Gasoline
	Thousand Barrels per Day						Percent of Total	Million Barrels	
973 AVERAGE	**6,535**	**134**	**9**	**4**	**6,674**	**NA**	**NA**	**209**	
974 AVERAGE	**6,360**	**204**	**-24**	**2**	**6,537**	**NA**	**NA**	[6] **218**	
975 AVERAGE	**6,520**	**184**	[6] **-28**	**2**	**6,675**	**NA**	**NA**	**235**	
976 AVERAGE	**6,841**	**131**	**10**	**3**	**6,978**	**NA**	**NA**	**231**	
977 AVERAGE	**7,033**	**217**	**-72**	**2**	**7,177**	**1,976**	**27.5**	**258**	
978 AVERAGE	**7,169**	**190**	**54**	**1**	**7,412**	**2,521**	**34.0**	**238**	
979 AVERAGE	**6,852**	**181**	**2**	(s)	**7,034**	**2,798**	**39.8**	**237**	
980 AVERAGE	**6,506**	**140**	**-66**	**1**	**6,579**	**3,067**	**46.6**	[6] **261**	
981 AVERAGE[7]	**6,405**	**157**	[6] 28	**2**	**6,588**	**3,264**	**49.5**	253	
982 January	6,167	128	-316	18	5,961	3,067	51.5	261	213
February	5,899	133	172	8	6,196	3,210	51.8	257	208
March	5,994	183	334	44	6,466	3,358	51.9	247	198
April	6,095	185	650	33	6,897	3,495	50.7	221	179
May	6,319	182	177	23	6,655	3,415	51.3	214	173
June	6,754	230	-134	14	6,835	3,565	52.2	219	177
July	6,768	225	-178	24	6,790	3,577	52.7	226	183
August	6,419	291	-81	16	6,614	3,526	53.3	227	185
September	6,527	223	-198	22	6,531	3,404	52.1	234	191
October	6,262	185	-42	15	6,391	3,351	52.4	234	192
November	6,273	211	101	11	6,574	3,451	52.5	230	189
December	6,542	178	-165	7	6,549	3,485	53.2	[6] 235	[6] 194
AVERAGE	**6,338**	**197**	**25**	**20**	**6,539**	**3,409**	**52.1**		
983 January	6,020	148	[6] -186	(s)	5,981	3,352	56.0	251	208
February	5,848	142	32	(s)	6,022	3,257	54.1	251	207
March	5,897	205	765	23	6,843	3,620	52.9	224	184
April	6,202	273	27	1	6,501	3,505	53.9	221	183
May	6,386	284	-128	1	6,540	3,547	54.2	225	187
June	6,646	265	118	22	7,008	3,796	54.2	223	183
July	6,704	297	-210	18	6,773	3,752	55.4	231	190
August	6,539	260	159	13	6,946	3,836	55.2	226	185
September	6,582	285	-160	14	6,693	3,671	54.8	230	190
October	6,188	335	60	2	6,581	3,698	56.2	228	188
November	6,636	269	-274	2	6,629	3,714	56.0	236	196
December	6,314	217	340	25	6,846	3,967	57.9	222	185
AVERAGE	**6,332**	**249**	**47**	**10**	**6,617**	**3,646**	**55.1**		
984 January*	R 6,037	R 233	R -1	1	R 6,268	3,606	57.5	R 225	R 186
February**	*6,252*	*229*	*-355*	NA	*6,114*	NA	NA	*233*	*194*
AVERAGE	**6,141**	**231**	**-172**	**NA**	**6,193**	**NA**	**NA**		

---

[1] Stocks are totals as of end of period.

[2] Beginning in 1981, excludes blending components.

[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[4] Includes gasohol.

[5] Includes motor gasoline blending components.

[6] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

[7] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.3.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

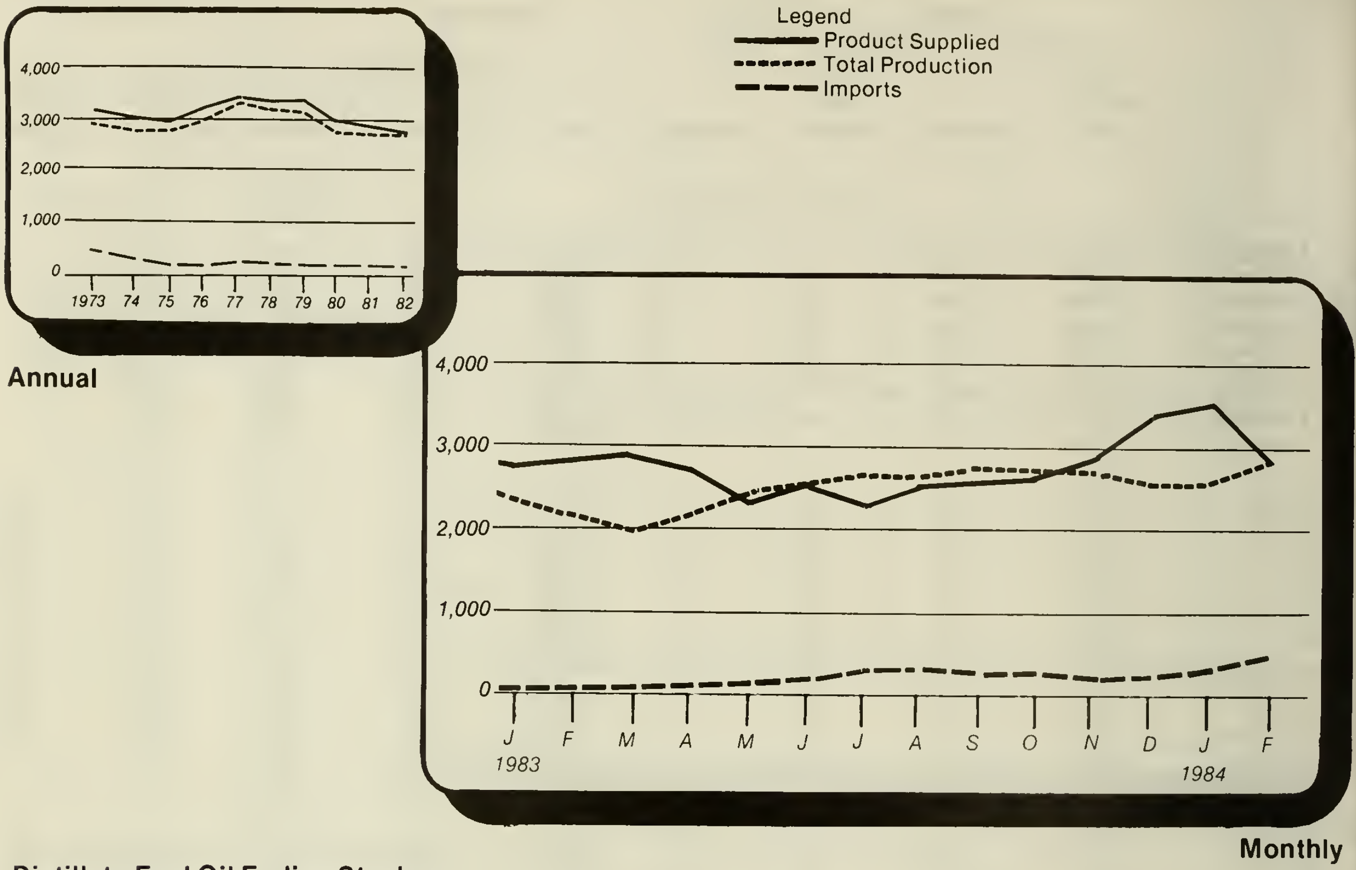
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

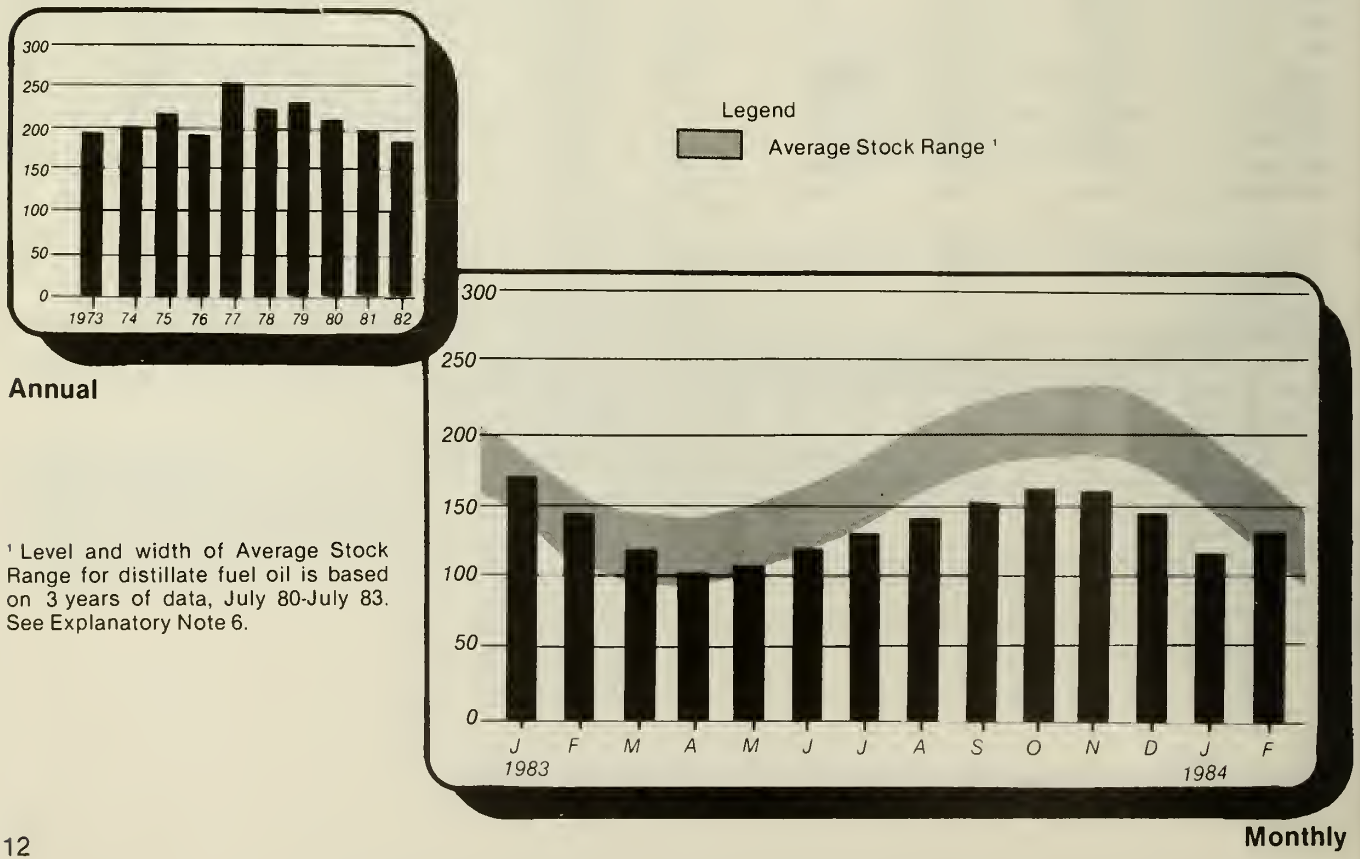
Distillate Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



Distillate Fuel Oil Ending Stocks

(Million Barrels)



[1] Level and width of Average Stock Range for distillate fuel oil is based on 3 years of data, July 80-July 83. See Explanatory Note 6.

Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks[1]
		Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Products Supplied[3]	
		Thousand Barrels per Day						Million Barrels
1973	**AVERAGE**	**2,822**	**392**	**-115**	**2**	**9**	**3,092**	**196**
1974	**AVERAGE**	**2,669**	**289**	**-9**	**2**	**2**	**2,948**	**[4] 200**
1975	**AVERAGE**	**2,654**	**155**	**[4] 40**	**2**	**1**	**2,851**	**209**
1976	**AVERAGE**	**2,924**	**146**	**62**	**1**	**1**	**3,133**	**186**
1977	**AVERAGE**	**3,278**	**250**	**-176**	**1**	**1**	**3,352**	**250**
1978	**AVERAGE**	**3,167**	**173**	**93**	**1**	**3**	**3,432**	**216**
1979	**AVERAGE**	**3,153**	**193**	**-34**	**1**	**3**	**3,311**	**229**
1980	**AVERAGE**	**2,662**	**142**	**64**	**1**	**3**	**2,866**	**[4] 205**
1981	**AVERAGE[5]**	**2,613**	**173**	[4] 38	**10**	**5**	**2,829**	192
1982	January	2,591	97	876	10	90	3,484	164
	February	2,427	132	605	11	90	3,085	147
	March	2,288	48	682	10	84	2,945	126
	April	2,358	59	612	13	64	2,978	108
	May	2,618	74	-183	10	75	2,444	114
	June	2,729	102	-335	10	55	2,452	124
	July	2,734	125	-789	11	24	2,058	148
	August	2,507	80	-339	10	40	2,218	159
	September	2,657	61	-85	12	139	2,507	161
	October	2,838	91	-289	8	66	2,581	170
	November	2,860	145	-514	8	24	2,475	186
	December	2,655	109	225	10	143	2,855	**[4] 179**
	AVERAGE	**2,606**	**93**	**35**	**10**	**74**	**2,671**	
1983	January	2,314	58	**[4] 561**	NA	173	2,760	168
	February	2,136	58	742	NA	105	2,832	147
	March	1,991	42	926	NA	59	2,900	119
	April	2,169	73	518	NA	47	2,713	103
	May	2,444	141	-193	NA	50	2,341	109
	June	2,545	175	-154	NA	40	2,526	114
	July	2,600	259	-556	NA	55	2,248	131
	August	2,612	302	-403	NA	43	2,467	144
	September	2,725	253	-374	NA	37	2,568	155
	October	2,682	255	-275	NA	55	2,606	163
	November	2,679	189	65	NA	54	2,879	161
	December	2,524	212	675	NA	54	3,358	140
	AVERAGE	**2,454**	**169**	**124**	NA	**64**	**2,682**	
1984	January*	R 2,585	R 270	R 676	NA	40	R 3,490	R 119
	February**	*2,831*	*457*	*-447*	NA	NA	*2,788*	*130*
	AVERAGE	**2,704**	**360**	**133**	**NA**	**NA**	**3,150**	

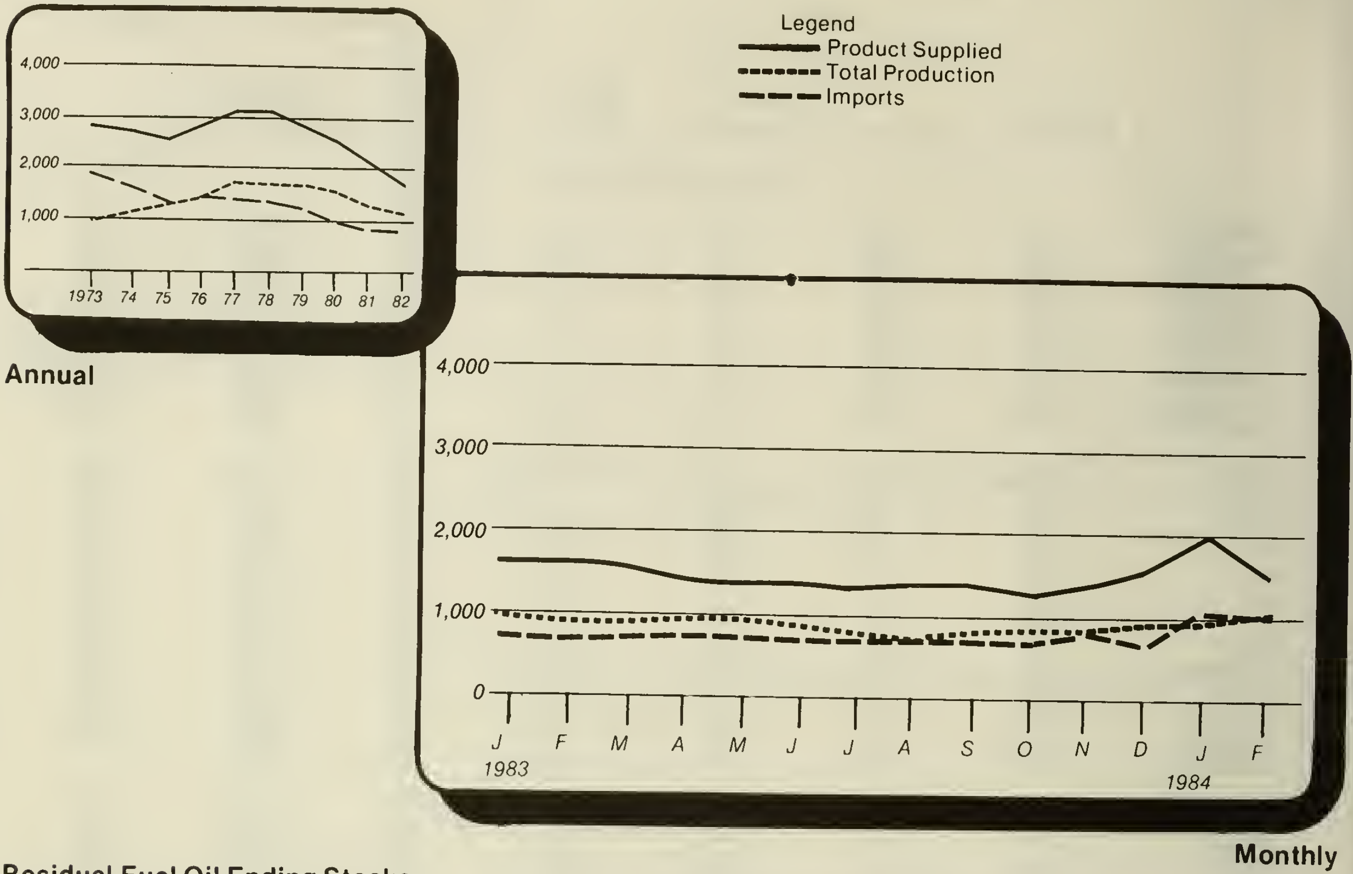
---

[1] Stocks are totals as of end of period.
[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[3] Beginning in January 1984, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 4.
[4] In January 1975, 1981, and 1984, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.
[5] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.
* See Explanatory Note 9.4.
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.
R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.
Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.
Source: See the last page of this section.

LIBRARY U. OF I. URBANA-CHAMPAIGN

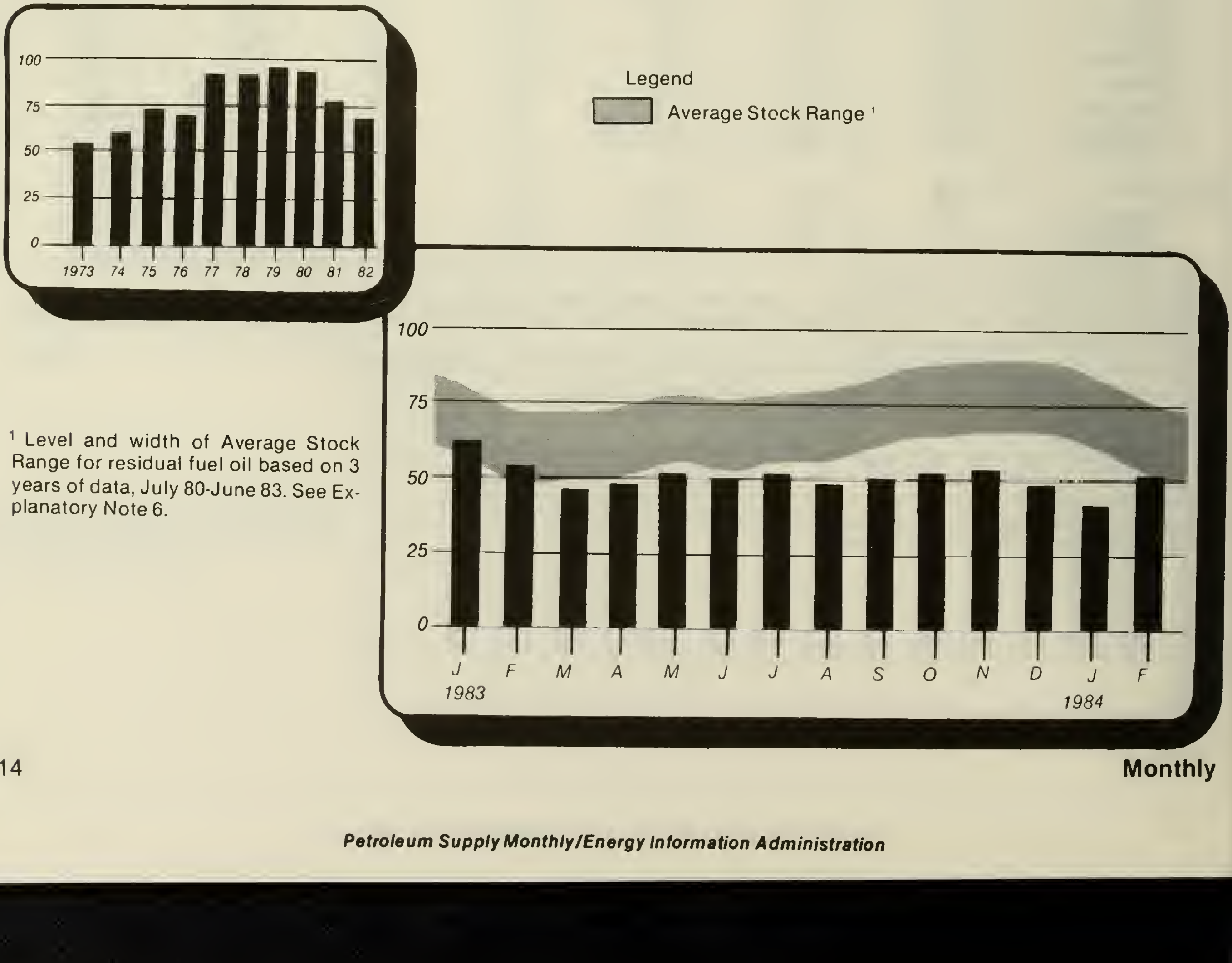
Residual Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



Residual Fuel Oil Ending Stocks

(Million Barrels)



[1] Level and width of Average Stock Range for residual fuel oil based on 3 years of data, July 80-June 83. See Explanatory Note 6.

Residual Fuel Oil Supply and Disposition

	Supply				Disposition		Ending Stocks[1]
	Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Products Supplied[3]	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**971**	**1,853**	**5**	**17**	**23**	**2,822**	**53**
1974 AVERAGE	**1,070**	**1,587**	**-17**	**13**	**14**	**2,639**	[4] **60**
1975 AVERAGE	**1,235**	**1,223**	[4] **2**	**15**	**15**	**2,462**	**74**
1976 AVERAGE	**1,377**	**1,413**	**5**	**17**	**12**	**2,801**	**72**
1977 AVERAGE	**1,754**	**1,359**	**-48**	**13**	**6**	**3,071**	**90**
1978 AVERAGE	**1,667**	**1,355**	**-1**	**13**	**13**	**3,023**	**90**
1979 AVERAGE	**1,687**	**1,151**	**-15**	**12**	**9**	**2,826**	**96**
1980 AVERAGE	**1,580**	**939**	**10**	**12**	**33**	**2,508**	[4] **92**
1981 AVERAGE[5]	**1,321**	**800**	[4] 37	**48**	**118**	**2,088**	**78**
1982 January	1,235	831	301	53	235	2,185	69
February	1,186	956	363	53	213	2,344	58
March	1,123	912	12	53	197	1,903	58
April	1,166	788	150	52	234	1,923	54
May	1,128	742	-172	52	191	1,560	59
June	1,074	652	-57	50	217	1,501	61
July	1,028	657	56	49	239	1,550	59
August	965	551	203	47	235	1,531	53
September	1,008	872	-306	44	148	1,470	62
October	955	783	-57	43	234	1,490	64
November	989	837	-94	43	182	1,591	66
December	989	747	6	43	186	1,598	[4] **66**
AVERAGE	**1,070**	**776**	**32**	**48**	**209**	**1,716**	
1983 January	935	691	[4] **243**	NA	294	1,574	61
February	857	632	270	NA	191	1,568	53
March	833	686	220	NA	169	1,569	46
April	942	743	-10	NA	310	1,364	47
May	930	709	-139	NA	190	1,310	51
June	832	676	28	NA	219	1,317	50
July	771	682	-58	NA	90	1,306	52
August	706	705	115	NA	165	1,362	48
September	815	690	-47	NA	134	1,324	50
October	799	634	-56	NA	153	1,224	51
November	848	777	-101	NA	167	1,358	54
December	893	646	173	NA	141	1,570	49
AVERAGE	**846**	**689**	**52**	**NA**	**185**	**1,403**	
1984 January*	R 953	R 1,061	R 119	NA	151	R 1,981	R 45
February**	*1,057*	*994*	*-375*	NA	NA	*1,521*	*52*
AVERAGE	**1,003**	**1,028**	**-120**	**NA**	**NA**	**1,758**	

---

[1] Stocks are totals as of end of period.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 4.

[4] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

[5] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

Note: Geographic coverage is the 50 United States and the District of Columbia.

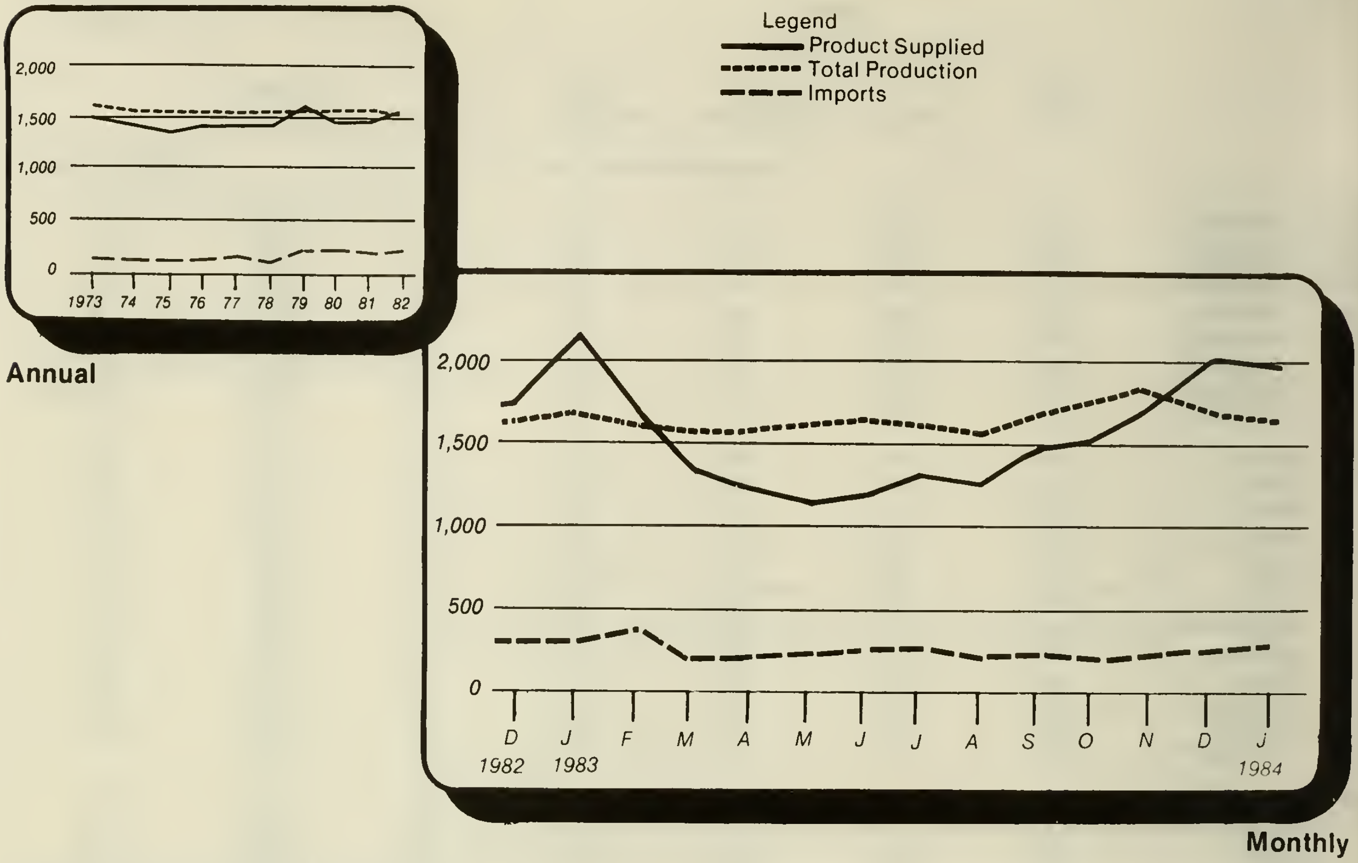
Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

LIBRARY U. OF I. URBANA-CHAMPAIGN

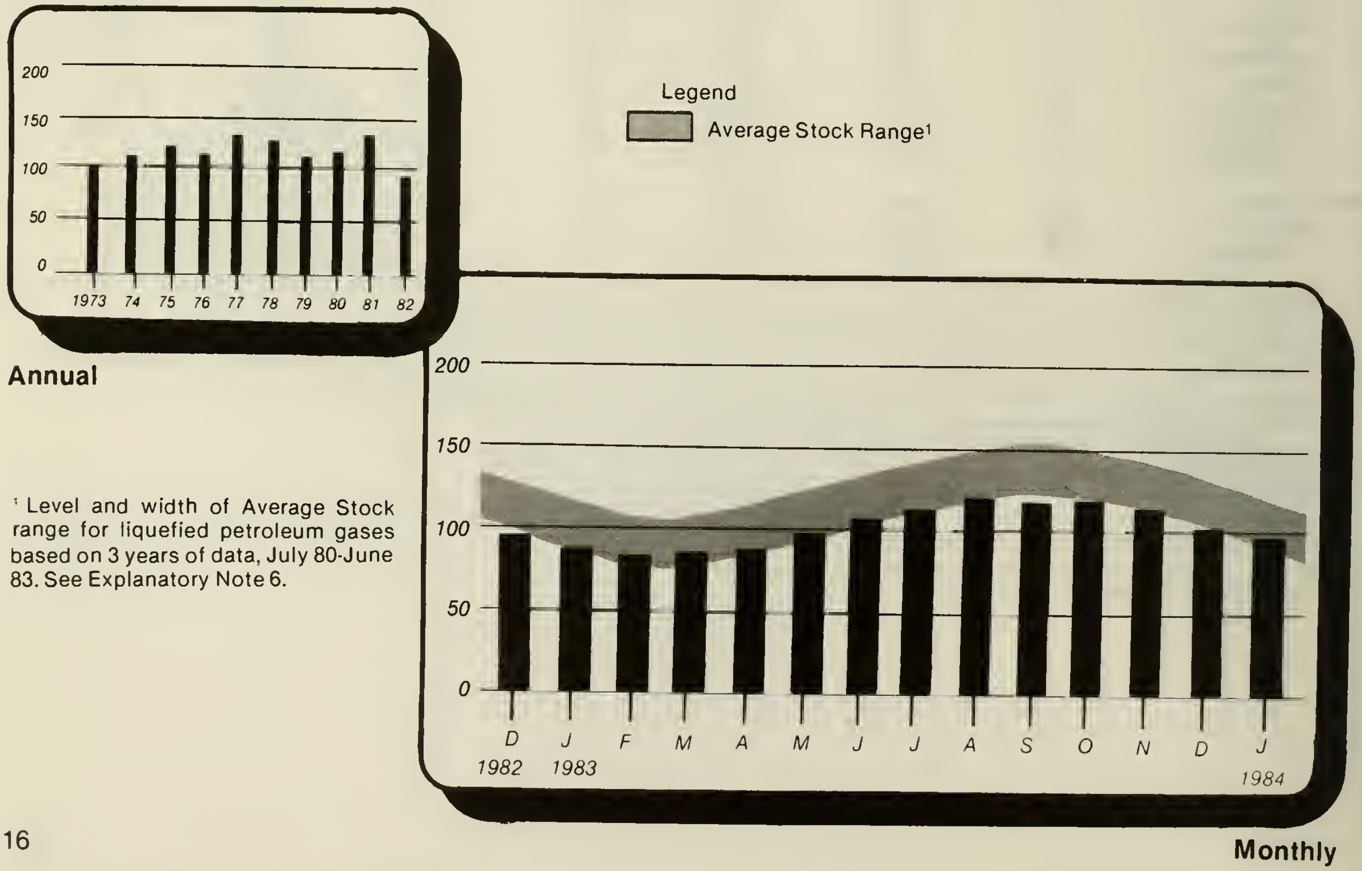
Liquefied Petroleum Gases Supply and Disposition

(Thousand Barrels Per Day)



Liquefied Petroleum Gases Ending Stocks

(Million Barrels)



[1] Level and width of Average Stock range for liquefied petroleum gases based on 3 years of data, July 80-June 83. See Explanatory Note 6.

Liquefied Petroleum Gases Supply and Disposition

	Supply			Disposition			Ending Stocks[1]
	Total Production	Imports	Stock Withdrawal[2]	Refinery Inputs	Exports	Products Supplied	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**1,600**	**132**	**-35**	**220**	**27**	**1,449**	99
1974 AVERAGE	**1,565**	**123**	**-38**	**220**	**25**	**1,406**	[3] **113**
1975 AVERAGE	**1,527**	**112**	[3] **-35**	**246**	**26**	**1,333**	**125**
1976 AVERAGE	**1,535**	**130**	**24**	**260**	**25**	**1,404**	**116**
1977 AVERAGE	**1,566**	**161**	**-55**	**233**	**18**	**1,422**	**136**
1978 AVERAGE	**1,537**	**123**	**12**	**239**	**20**	**1,413**	**132**
1979 AVERAGE	**1,556**	**217**	**70**	**236**	**15**	**1,592**	**111**
1980 AVERAGE	**1,535**	**216**	**-27**	**233**	**21**	**1,469**	[3] **120**
1981 AVERAGE	**1,571**	**244**	[3] **-18**	**289**	**42**	**1,466**	135
1982 January	1,565	314	443	391	67	1,863	121
February	1,466	291	243	327	51	1,621	114
March	1,544	223	211	289	74	1,615	108
April	1,506	188	98	257	77	1,458	105
May	1,565	186	-71	234	43	1,403	107
June	1,515	192	-86	262	106	1,254	109
July	1,476	227	-13	253	37	1,399	110
August	1,511	125	-45	254	61	1,276	111
September	1,538	247	37	274	85	1,463	110
October	1,517	194	97	306	81	1,421	107
November	1,542	267	175	363	37	1,583	102
December	1,580	258	256	395	56	1,642	[3] 94
AVERAGE	**1,528**	**226**	**111**	**300**	**65**	**1,499**	
1983 January	1,662	240	[3] 618	313	118	2,088	84
February	1,560	305	84	237	76	1,636	81
March	1,517	166	-51	189	127	1,316	83
April	1,531	124	-107	198	116	1,232	86
May	1,545	167	-326	207	84	1,094	96
June	1,593	172	-333	205	59	1,169	106
July	1,571	191	-206	217	55	1,284	112
August	1,505	160	-183	229	29	1,225	118
September	1,625	178	-23	236	86	1,457	119
October	1,688	160	-61	268	32	1,487	121
November	1,784	180	78	361	33	1,648	118
December	1,644	247	575	358	66	2,043	[3] 101
AVERAGE	**1,602**	**190**	**6**	**252**	**73**	**1,473**	
1984 January*	1,610	269	[3] 470	333	23	1,993	93

---

[1] Stocks are totals as of end of period.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

* See Explanatory Note 9.5.

Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Other Petroleum Products[1] Supply and Disposition

	Supply			Disposition			Ending Stocks[2]
	Total Production	Imports	Stock Withdrawal[3]	Refinery Inputs	Exports	Products Supplied	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**3,693**	**502**	**-9**	**750**	**166**	**3,270**	**208**
1974 AVERAGE	**3,558**	**432**	**-28**	**665**	**174**	**3,123**	**[4] 218**
1975 AVERAGE	**3,424**	**277**	**[4] -2**	**537**	**160**	**3,002**	**219**
1976 AVERAGE	**3,643**	**206**	**-5**	**524**	**175**	**3,145**	**220**
1977 AVERAGE	**3,912**	**205**	**-27**	**514**	**165**	**3,410**	**230**
1978 AVERAGE	**4,046**	**166**	**14**	**492**	**167**	**3,568**	**225**
1979 AVERAGE	**4,153**	**195**	**-37**	**352**	**209**	**3,749**	**238**
1980 AVERAGE	**3,956**	**210**	**-23**	**311**	**198**	**3,634**	**[4] 247**
1981 AVERAGE	**3,739**	**226**	**[4] 46**	**723**	**199**	**3,088**	**282**
1982 January	3,171	269	-7	624	180	2,631	282
February	3,403	305	-153	663	138	2,755	287
March	3,466	243	-191	725	161	2,631	293
April	3,408	309	73	796	204	2,790	290
May	3,317	318	184	824	210	2,785	285
June	3,547	315	123	812	216	2,954	281
July	3,660	408	-1	856	187	3,023	281
August	3,583	346	217	743	202	3,201	274
September	3,533	375	105	749	213	3,051	271
October	3,529	383	244	915	266	2,976	264
November	3,498	423	-28	837	269	2,786	264
December	3,324	313	366	885	275	2,842	[4] 253
AVERAGE	**3,453**	**334**	**80**	**787**	**211**	**2,869**	
1983 January	3,222	297	[4] -371	570	271	2,307	271
February	3,270	287	-1	680	232	2,645	271
March	3,400	298	-94	570	249	2,786	273
April	3,363	377	3	596	247	2,901	273
May	3,448	364	26	694	242	2,902	273
June	3,674	427	99	715	292	3,197	270
July	3,703	393	106	757	209	3,237	266
August	3,774	435	23	689	242	3,302	266
September	3,861	460	-31	768	236	3,287	267
October	3,579	427	-124	701	195	2,985	270
November	3,560	442	101	912	238	2,955	267
December	3,106	450	387	877	257	2,808	[4] 255
AVERAGE	**3,498**	**388**	**10**	**711**	**242**	**2,943**	
1984 January*	3,391	486	[4] -177	561	207	2,931	253

---

[1] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoliine blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[2] Stocks are totals as of end of period.

[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[4] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

* See Explanatory Note 9.6.

Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Sources

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual."
2. 1977 through 1980: Energy Information Administration (EIA), *Energy Data Reports*, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual," and unleaded gasoline data from *Monthly Petroleum Statistics Report*.
3. January 1981 through December 1982: EIA, *Petroleum Supply Annual*.
4. January 1983 through January 1984: Detailed statistics in appropriate issues of the Petroleum Supply Monthly. (see Explanatory Notes 9.1 through 9.6).
5. February 1984: Estimates based on EIA weekly data (except domestic crude oil production) (see Explanatory Note 1.1).
6. January 1983 through February 1984: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey. (See Explanatory Note 3).

Detailed Statistics

LIBRARY U. OF I. URBANA-CHAMPAIGN

Table 1. U.S. Petroleum Balance, January 1984

	Current Month	
	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)		
Field Production		
(1) Alaska	E 53,962	1,741
(2) Lower 48 States	E 214,457	6,918
(3) Total U.S.	E 268,419	8,659
Net Imports		
(4) Imports (Gross Excluding SPR)	87,697	2,829
(5) SPR Imports	6,197	200
(6) Exports	4,739	153
(7) Imports (Net Including SPR)	89,156	2,876
Other Sources		
(8) SPR Withdrawal (+) or Addition (-)	-5,360	-173
(9) Other Stock Withdrawal (+) or Addition (-)	-5,236	-169
(10) Product Supplied and Losses	-2,025	-65
(11) Unaccounted for [1]	13,991	451
(12) Total Other Sources	1,370	44
(13) Crude Input to Refineries (13) = (3) + (7) + (12)	358,945	11,579
Natural Gas Plant Liquids (NGPL)		
(14) Field Production	49,146	1,585
(15) Imports [2]	596	19
(16) Stock Withdrawal (+) or Addition (-) [2]	244	8
(17) Total NGPL Supply	49,986	1,612
Other Liquids		
Unfinished Oils and Gasoline Blending Components, Total		
(18) Stock Withdrawal (+) or Addition (-)	-6,381	-206
(19) Imports	9,870	318
(20) Other Hydrocarbons and Alcohol New Supply (Field Production)	1,167	38
(21) Refinery Processing Gain [1]	14,859	479
(22) Crude Oil Product Supplied	1,989	64
(23) Total Other Liquids (23) = (18) through (22)	21,504	694
(24) Total Production of Products [3] (24) = (13) + (17) + (23)	430,436	13,885
Net Imports of Refined Products [3]		
(25) Imports (Gross)	61,388	1,980
(26) Exports	13,093	422
(27) Imports (Net)	48,295	1,558
(28) Total New Supply of Products (28) = (24) + (27)	478,731	15,443
(29) Refined Products Stock Withdrawal (+) or Addition (-) [3]	39,786	1,283
(30) Total Petroleum Products Supplied for Domestic Use (30) = (28) + (29)	518,517	16,726
(31) Finished Motor Gasoline	194,300	6,268
(32) Distillate Fuel Oil	108,177	3,490
(33) Residual Fuel Oil	61,398	1,981
(34) Liquefied Petroleum Gases	61,777	1,993
(35) Other[4]	90,875	2,931
(36) Crude Oil	1,989	64
(37) Total Product Supplied (37) = (31) through (36)	518,517	16,726
Ending Stocks, All Oils		
(38) Crude Oil and Lease Condensate (Excluding SPR)	348,412	--
(39) Strategic Petroleum Reserve (SPR)	384,449	--
(40) Unfinished Oils	110,814	--
(41) Gasoline Blending Components	40,587	--
(42) Pentanes Plus	8,521	--
(43) Finished Refined Products [3]	537,264	--
(44) Total Stocks	1,430,047	--

[1] A balancing item.

[2] Includes products in the pentanes plus category only.

[3] For products included see Explanatory Note 9.7.

[4] Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil and liquefied petroleum gases.

E = Estimated.

-- Not Applicable.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1, 2 and 9.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, January 1984 (Thousand Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 268,419	0	93,895	-10,596	13,991	36	358,945	4,739	1,989	732,861
Natural Gas Liquids and LRGs	**48,974**	**9,857**	**8,946**	**14,821**	**0**	**0**	**16,505**	**719**	**65,374**	**101,701**
Pentanes Plus	8,929	0	596	244	0	0	6,173	(s)	3,596	8,521
Liquefied Petroleum Gases	40,045	9,857	8,350	14,577	0	0	10,332	719	61,777	93,180
Ethane	15,282	568	2,957	519	0	0	47	(s)	19,279	20,860
Propane	15,798	8,071	3,082	10,898	0	0	158	531	37,160	44,382
Normal Butane	6,170	1,225	1,403	2,134	0	0	6,557	189	4,187	18,255
Isobutane	2,795	-7	907	1,026	0	0	3,570	(s)	1,151	9,683
Other Liquids	1,167	0	9,870	-6,381	0	0	11,211	0	-6,555	151,401
Other Hydrocarbons and Alcohol	1,167	0	0	-22	0	0	1,145	0	0	307
Unfinished Oils	0	0	9,085	-3,316	0	0	7,916	0	-2,147	110,814
Motor Gasoline Blending Components	0	0	785	-3,022	0	0	2,171	0	-4,408	39,942
Aviation Gasoline Blending Components	**0**	**0**	**0**	**-21**	**0**	**0**	**-21**	**0**	**0**	**338**
Finished Petroleum Products	172	391,663	53,038	25,209	0	0	0	12,374	457,709	444,084
Finished Motor Gasoline	62	187,097	7,209	-43	0	0	0	25	194,300	185,538
Finished Leaded Motor Gasoline	44	77,603	3,088	1,812	0	0	0	25	82,522	92,272
Finished Unleaded Motor Gasoline	18	109,494	4,121	-1,855	0	0	0	0	111,778	93,266
Finished Aviation Gasoline	**0**	**571**	**1**	**-141**	**0**	**0**	**0**	**0**	**431**	**2,432**
Naphtha-Type Jet Fuel	0	5,559	438	-107	0	0	0	0	5,890	6,320
Kerosene-Type Jet Fuel	0	26,900	1,415	3,113	0	0	0	318	31,110	29,255
Kerosene	3	5,605	536	350	0	0	0	2	6,493	7,510
Distillate Fuel Oil	35	80,089	8,359	20,942	0	0	0	1,248	108,177	119,460
Residual Fuel Oil	0	29,532	32,883	3,678	0	0	0	4,695	61,398	45,430
Naphtha < 400 Deg. for Petro. Feed. Use	0	3,532	848	147	0	0	0	194	4,333	1,565
Other Oils > 400 Deg. for Petro. Feed. Use	0	7,212	0	-15	0	0	0	412	6,785	1,772
Special Naphthas	0	1,530	429	82	0	0	0	46	1,995	3,071
Lubricants	0	4,315	348	-271	0	0	0	303	4,088	12,346
Waxes	0	360	27	92	0	0	0	40	439	685
Petroleum Coke	0	13,565	0	-154	0	0	0	5,055	8,356	5,635
Asphalt and Road Oil	0	6,419	17	-2,270	0	0	0	5	4,161	21,062
Still Gas	0	16,907	0	0	0	0	0	0	16,907	0
Miscellaneous Products	72	2,470	530	-194	0	0	0	31	2,847	2,003
Total	318,732	401,520	165,749	23,053	13,991	36	386,661	17,832	518,517	1,430,047

---

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products, January 1984 (Thousand Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 268,419	0	93,895	-10,596	13,991	36	358,945	4,739	1,989	732,861
Natural Gas Liquids and LRGs	**48,974**	**9,857**	**8,946**	**14,821**	**0**	**0**	**16,505**	**719**	**65,374**	**101,701**
Pentanes Plus	8,929	0	596	244	0	0	6,173	(s)	3,596	8,521
Liquefied Petroleum Gases	40,045	9,857	8,350	14,577	0	0	10,332	719	61,777	93,180
Ethane	15,282	568	2,957	519	0	0	47	(s)	19,279	20,860
Propane	15,798	8,071	3,082	10,898	0	0	158	531	37,160	44,382
Normal Butane	6,170	1,225	1,403	2,134	0	0	6,557	189	4,187	18,255
Isobutane	2,795	-7	907	1,026	0	0	3,570	(s)	1,151	9,683
Other Liquids	1,167	0	9,870	-6,381	0	0	11,211	0	-6,555	151,401
Other Hydrocarbons and Alcohol	1,167	0	0	-22	0	0	1,145	0	0	307
Unfinished Oils	0	0	9,085	-3,316	0	0	7,916	0	-2,147	110,814
Motor Gasoline Blending Components	0	0	785	-3,022	0	0	2,171	0	-4,408	39,942
Aviation Gasoline Blending Components	**0**	**0**	**0**	**-21**	**0**	**0**	**-21**	**0**	**0**	**338**
Finished Petroleum Products	172	391,663	53,038	25,209	0	0	0	12,374	457,709	444,084
Finished Motor Gasoline	62	187,097	7,209	-43	0	0	0	25	194,300	185,538
Finished Leaded Motor Gasoline	44	77,603	3,088	1,812	0	0	0	25	82,522	92,272
Finished Unleaded Motor Gasoline	18	109,494	4,121	-1,855	0	0	0	0	111,778	93,266
Finished Aviation Gasoline	**0**	**571**	**1**	**-141**	**0**	**0**	**0**	**0**	**431**	**2,432**
Naphtha-Type Jet Fuel	0	5,559	438	-107	0	0	0	0	5,890	6,320
Kerosene-Type Jet Fuel	0	26,900	1,415	3,113	0	0	0	318	31,110	29,255
Kerosene	3	5,605	536	350	0	0	0	2	6,493	7,510
Distillate Fuel Oil	35	80,089	8,359	20,942	0	0	0	1,248	108,177	119,460
Residual Fuel Oil	0	29,532	32,883	3,678	0	0	0	4,695	61,398	45,430
Naphtha < 400 Deg. for Petro. Feed. Use	0	3,532	848	147	0	0	0	194	4,333	1,565
Other Oils > 400 Deg. for Petro. Feed. Use	0	7,212	0	-15	0	0	0	412	6,785	1,772
Special Naphthas	0	1,530	429	82	0	0	0	46	1,995	3,071
Lubricants	0	4,315	348	-271	0	0	0	303	4,088	12,346
Waxes	0	360	27	92	0	0	0	40	439	685
Petroleum Coke	0	13,565	0	-154	0	0	0	5,055	8,356	5,635
Asphalt and Road Oil	0	6,419	17	-2,270	0	0	0	5	4,161	21,062
Still Gas	0	16,907	0	0	0	0	0	0	16,907	0
Miscellaneous Products	72	2,470	530	-194	0	0	0	31	2,847	2,003
Total	318,732	401,520	165,749	23,053	13,991	36	386,661	17,832	518,517	1,430,047

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January 1984
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,659	0	3,029	-342	451	1	11,579	153	64
Natural Gas Liquids and LRGs	1,580	318	289	478	0	0	532	23	2,109
Pentanes Plus	288	0	19	8	0	0	199	(s)	116
Liquefied Petroleum Gases	1,292	318	269	470	0	0	333	23	1,993
Ethane	493	18	95	17	0	0	2	(s)	622
Propane	510	260	99	352	0	0	5	17	1,199
Normal Butane	199	40	45	69	0	0	212	6	135
Isobutane	90	(s)	29	33	0	0	115	(s)	37
Other Liquids	38	0	318	-206	0	0	362	0	-211
Other Hydrocarbons and Alcohol	38	0	0	-1	0	0	37	0	0
Unfinished Oils	0	0	293	-107	0	0	255	0	-69
Motor Gasoline Blending Components	0	0	25	-97	0	0	70	0	-142
Aviation Gasoline Blending Components	0	0	0	-1	0	0	-1	0	0
Finished Petroleum Products	6	12,634	1,711	813	0	0	0	399	14,765
Finished Motor Gasoline	2	6,035	233	-1	0	0	0	1	6,268
Finished Leaded Motor Gasoline	1	2,503	100	58	0	0	0	1	2,662
Finished Unleaded Motor Gasoline	1	3,532	133	-60	0	0	0	0	3,606
Finished Aviation Gasoline	0	18	(s)	-5	0	0	0	0	14
Naphtha-Type Jet Fuel	0	179	14	-3	0	0	0	0	190
Kerosene-Type Jet Fuel	0	868	46	100	0	0	0	10	1,004
Kerosene	(s)	181	17	11	0	0	0	(s)	209
Distillate Fuel Oil	1	2,584	270	676	0	0	0	40	3,490
Residual Fuel Oil	0	953	1,061	119	0	0	0	151	1,981
Naphtha < 400 Deg. for Petro. Feed. Use	0	114	27	5	0	0	0	6	140
Other Oils > 400 Deg. for Petro. Feed. Use	0	233	0	(s)	0	0	0	13	219
Special Naphthas	0	49	14	3	0	0	0	1	64
Lubricants	0	139	11	-9	0	0	0	10	132
Waxes	0	12	1	3	0	0	0	1	14
Petroleum Coke	0	438	0	-5	0	0	0	163	270
Asphalt and Road Oil	0	207	1	-73	0	0	0	(s)	134
Still Gas	0	545	0	0	0	0	0	0	545
Miscellaneous Products	2	80	17	-6	0	0	0	1	92
Total	10,282	12,952	5,347	744	451	1	12,473	575	16,726

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January 1984 (Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,659	0	3,029	-342	451	1	11,579	153	64
Natural Gas Liquids and LRGs	1,580	318	289	478	0	0	532	23	2,109
Pentanes Plus	288	0	19	8	0	0	199	(s)	116
Liquefied Petroleum Gases	1,292	318	269	470	0	0	333	23	1,993
Ethane	493	18	95	17	0	0	2	(s)	622
Propane	510	260	99	352	0	0	5	17	1,199
Normal Butane	199	40	45	69	0	0	212	6	135
Isobutane	90	(s)	29	33	0	0	115	(s)	37
Other Liquids	38	0	318	-206	0	0	362	0	-211
Other Hydrocarbons and Alcohol	38	0	0	-1	0	0	37	0	0
Unfinished Oils	0	0	293	-107	0	0	255	0	-69
Motor Gasoline Blending Components	0	0	25	-97	0	0	70	0	-142
Aviation Gasoline Blending Components	0	0	0	-1	0	0	-1	0	0
Finished Petroleum Products	6	12,634	1,711	813	0	0	0	399	14,765
Finished Motor Gasoline	2	6,035	233	-1	0	0	0	1	6,268
Finished Leaded Motor Gasoline	1	2,503	100	58	0	0	0	1	2,662
Finished Unleaded Motor Gasoline	1	3,532	133	-60	0	0	0	0	3,606
Finished Aviation Gasoline	0	18	(s)	-5	0	0	0	0	14
Naphtha-Type Jet Fuel	0	179	14	-3	0	0	0	0	190
Kerosene-Type Jet Fuel	0	868	46	100	0	0	0	10	1,004
Kerosene	(s)	181	17	11	0	0	0	(s)	209
Distillate Fuel Oil	1	2,584	270	676	0	0	0	40	3,490
Residual Fuel Oil	0	953	1,061	119	0	0	0	151	1,981
Naphtha < 400 Deg. for Petro. Feed. Use	0	114	27	5	0	0	0	6	140
Other Oils > 400 Deg. for Petro. Feed. Use	0	233	0	(s)	0	0	0	13	219
Special Naphthas	0	49	14	3	0	0	0	1	64
Lubricants	0	139	11	-9	0	0	0	10	132
Waxes	0	12	1	3	0	0	0	1	14
Petroleum Coke	0	438	0	-5	0	0	0	163	270
Asphalt and Road Oil	0	207	1	-73	0	0	0	(s)	134
Still Gas	0	545	0	0	0	0	0	0	545
Miscellaneous Products	2	80	17	-6	0	0	0	1	92
Total	10,282	12,952	5,347	744	451	1	12,473	575	16,726

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 6. PAD District I, Supply and Disposition of Crude Oil and Petroleum Products, January 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (Including lease condensate)	E 2,303	0	26,057	-530	290	3,861	2	31,979	0	0	15,587
Natural Gas Liquids and LRGs	961	1,130	733	1,496	0	4,195	0	92	47	8,376	3,180
Liquefied Petroleum Gases	849	1,130	282	1,488	0	4,195	0	66	47	7,831	3,136
Pentanes Plus	112	0	451	8	0	0	0	26	0	545	44
Other Liquids	157	0	2,754	515	0	603	0	4,751	0	-722	17,555
Other Hydrocarbons and Alcohol	157	0	0	-31	0	0	0	126	0	0	81
Unfinished Oils	0	0	2,754	929	0	288	0	4,798	0	-827	12,754
Motor Gasoline Blending Components	0	0	0	-370	0	315	0	-160	0	105	4,707
Aviation Gasoline Blending Components	0	0	0	-13	0	0	0	-13	0	0	13
Finished Petroleum Products	48	37,461	45,694	23,522	0	73,392	0	0	794	179,323	142,510
Finished Motor Gasoline	48	17,222	5,489	2,758	0	38,818	0	0	22	64,313	56,725
Finished Leaded Motor Gasoline	30	5,623	2,169	2,071	0	14,616	0	0	22	24,487	27,183
Finished Unleaded Motor Gasoline	18	11,599	3,320	687	0	24,202	0	0	0	39,826	29,542
Finished Aviation Gasoline	0	0	1	30	0	80	0	0	0	111	502
Naphtha-Type Jet Fuel	0	653	438	-332	0	520	0	0	0	1,279	803
Kerosene-Type Jet Fuel	0	872	1,318	1,927	0	8,930	0	0	97	12,950	7,154
Kerosene	0	697	530	367	0	966	0	0	2	2,559	3,081
Distillate Fuel Oil	0	8,896	7,782	14,423	0	21,708	0	0	1	52,808	43,395
Residual Fuel Oil	0	4,606	29,779	4,022	0	1,139	0	0	250	39,295	20,970
Naphtha and Other Oils for Petro. Feed.	0	358	6	-83	0	9	0	0	45	245	139
Special Naphthas	0	44	119	134	0	196	0	0	4	489	753
Lubricants	0	586	204	-135	0	470	0	0	80	1,045	3,459
Waxes	0	72	17	12	0	6	0	0	6	101	142
Petroleum Coke	0	1,093	0	275	0	0	0	0	269	1,099	807
Asphalt and Road Oil	0	556	0	159	0	37	0	0	1	751	4,245
Still Gas	0	1,648	0	0	0	0	0	0	0	1,648	0
Miscellaneous Products	0	158	11	-35	0	513	0	0	17	630	335
Total	3,469	38,591	75,237	25,003	290	82,051	2	36,822	840	186,977	178,832

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 7. PAD District II, Supply and Disposition of Crude Oil and Petroleum Products, January 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 32,404	0	13,452	-1,224	34,687	3,058	3	82,213	162	0	73,559
Natural Gas Liquids and LRGs	9,462	1,972	5,997	3,151	0	4,662	0	6,098	(s)	19,146	31,688
Liquefied Petroleum Gases	7,669	1,972	5,997	3,401	0	4,312	0	4,499	(s)	18,852	28,573
Pentanes Plus	1,793	0	0	-250	0	350	0	1,599	(s)	294	3,115
Other Liquids	200	0	346	430	0	-3	0	1,614	0	-641	25,639
Other Hydrocarbons and Alcohol	200	0	0	2	0	0	0	202	0	0	129
Unfinished Oils	0	0	346	251	0	-3	0	614	0	-20	17,966
Motor Gasoline Blending Components	0	0	0	158	0	0	0	779	0	-621	7,481
Aviation Gasoline Blending Components	0	0	0	19	0	0	0	19	0	0	63
Finished Petroleum Products	16	90,862	583	2,223	0	17,704	0	0	155	111,233	120,428
Finished Motor Gasoline	0	50,514	22	390	0	11,184	0	0	(s)	62,109	55,669
Finished Leaded Motor Gasoline	0	22,288	19	359	0	6,000	0	0	(s)	28,665	29,256
Finished Unleaded Motor Gasoline	0	28,226	3	31	0	5,184	0	0	0	33,444	26,413
Finished Aviation Gasoline	0	96	0	-40	0	172	0	0	0	228	573
Naphtha-Type Jet Fuel	0	873	0	186	0	-72	0	0	0	987	1,473
Kerosene-Type Jet Fuel	0	4,623	0	216	0	2,424	0	0	100	7,163	6,569
Kerosene	0	1,324	0	21	0	132	0	0	0	1,477	1,522
Distillate Fuel Oil	0	19,899	108	3,111	0	3,645	0	0	1	26,761	37,146
Residual Fuel Oil	0	2,167	309	329	0	-80	0	0	0	2,725	3,624
Naphtha and Other Oils for Petro. Feed.	0	629	19	101	0	0	0	0	9	740	154
Special Naphthas	0	413	30	104	0	88	0	0	9	625	500
Lubricants	0	871	9	-86	0	140	0	0	15	920	2,187
Waxes	0	10	4	28	0	0	0	0	(s)	42	57
Petroleum Coke	0	3,251	0	-227	0	0	0	0	17	3,007	1,042
Asphalt and Road Oil	0	2,512	13	-1,794	0	84	0	0	2	813	9,660
Still Gas	0	3,438	0	0	0	0	0	0	0	3,438	0
Miscellaneous Products	16	242	70	-116	0	-13	0	0	2	197	252
Total	42,082	92,834	20,379	4,580	34,687	25,421	3	89,925	317	129,738	251,314

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 8. PAD District III, Supply and Disposition of Crude Oil and Petroleum Products, January 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 128,845	0	48,239	-3,444	-20,413	14,979	6	168,178	0	22	544,915
Natural Gas Liquids and LRGs	34,737	5,630	845	9,216	0	-7,777	0	9,123	473	33,055	64,001
Liquefied Petroleum Gases	28,895	5,630	803	8,727	0	-7,602	0	4,858	473	31,122	58,881
Pentanes Plus	5,842	0	42	489	0	-175	0	4,265	0	1,933	5,120
Other Liquids	486	0	5,776	-7,032	0	-702	0	3,095	0	-4,567	69,151
Other Hydrocarbons and Alcohol	486	0	0	5	0	0	0	491	0	0	94
Unfinished Oils	0	0	5,471	-5,532	0	-387	0	621	0	-1,069	51,759
Motor Gasoline Blending Components	0	0	304	-1,491	0	-315	0	1,997	0	-3,499	17,082
Aviation Gasoline Blending Components	0	0	0	-14	0	0	0	-14	0	0	216
Finished Petroleum Products	101	181,183	4,924	1,323	0	-94,010	0	0	4,851	88,670	113,887
Finished Motor Gasoline	10	81,960	737	-960	0	-51,937	0	0	(s)	29,809	45,488
Finished Leaded Motor Gasoline	10	33,235	478	211	0	-21,556	0	0	(s)	12,378	22,097
Finished Unleaded Motor Gasoline	0	48,725	258	-1,171	0	-30,381	0	0	0	17,431	23,391
Finished Aviation Gasoline	0	267	0	-78	0	-158	0	0	0	31	801
Naphtha-Type Jet Fuel	0	2,301	0	-105	0	-744	0	0	0	1,452	2,256
Kerosene-Type Jet Fuel	0	13,859	0	158	0	-12,174	0	0	0	1,843	10,029
Kerosene	3	3,264	6	-26	0	-1,098	0	0	(s)	2,149	2,615
Distillate Fuel Oil	35	37,821	245	3,075	0	-25,366	0	0	154	15,656	24,686
Residual Fuel Oil	0	11,820	2,366	-283	0	-1,059	0	0	1,561	11,283	11,760
Naphtha and Other Oils for Petro. Feed.	0	8,999	822	59	0	-9	0	0	481	9,390	2,518
Special Naphthas	0	1,012	264	-187	0	-284	0	0	32	773	1,606
Lubricants	0	2,572	37	-128	0	-554	0	0	175	1,753	5,141
Waxes	0	192	3	59	0	-6	0	0	32	216	428
Petroleum Coke	0	5,437	0	-132	0	0	0	0	2,406	2,899	1,539
Asphalt and Road Oil	0	1,856	1	-66	0	-121	0	0	(s)	1,669	3,827
Still Gas	0	7,941	0	0	0	0	0	0	0	7,941	0
Miscellaneous Products	53	1,882	444	-63	0	-500	0	0	10	1,805	1,193
Total	**164,169**	**186,813**	**59,784**	**63**	**-20,413**	**-87,510**	**6**	**180,396**	**5,324**	**117,180**	**791,954**

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 9. PAD District IV, Supply and Disposition of Crude Oil and Petroleum Products, January 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 16,365	0	868	-269	-4,457	0	0	12,498	0	9	13,842
Natural Gas Liquids and LRGs	2,869	77	807	-39	0	-1,080	0	427	0	2,207	1,134
Liquefied Petroleum Gases	2,043	77	703	-38	0	-905	0	291	0	1,589	949
Pentanes Plus	826	0	103	-1	0	-175	0	136	0	617	185
Other Liquids	7	0	0	-207	0	0	0	-584	0	384	4,850
Other Hydrocarbons and Alcohol	7	0	0	0	0	0	0	7	0	0	0
Unfinished Oils	0	0	0	52	0	0	0	-457	0	509	2,518
Motor Gasoline Blending Components	0	0	0	-259	0	0	0	-134	0	-125	2,332
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	7	12,585	196	-817	0	340	0	0	3	12,307	12,737
Finished Motor Gasoline	4	6,433	55	-444	0	100	0	0	0	6,148	6,120
Finished Leaded Motor Gasoline	4	3,770	55	-271	0	-98	0	0	0	3,460	3,913
Finished Unleaded Motor Gasoline	0	2,663	(s)	-173	0	198	0	0	0	2,688	2,207
Finished Aviation Gasoline	0	11	0	17	0	-94	0	0	0	-66	44
Naphtha-Type Jet Fuel	0	384	0	39	0	-77	0	0	0	346	254
Kerosene-Type Jet Fuel	0	559	0	78	0	650	0	0	0	1,287	462
Kerosene	0	142	0	-13	0	0	0	0	0	129	41
Distillate Fuel Oil	0	3,350	115	-101	0	-239	0	0	0	3,125	3,418
Residual Fuel Oil	0	305	24	55	0	0	0	0	0	384	412
Naphtha and Other Oils for Petro. Feed.	0	0	0	0	0	0	0	0	2	-2	3
Special Naphthas	0	2	(s)	6	0	0	0	0	0	8	6
Lubricants	0	37	(s)	1	0	0	0	0	1	37	229
Waxes	0	8	0	0	0	0	0	0	0	8	0
Petroleum Coke	0	281	0	-1	0	0	0	0	0	280	131
Asphalt and Road Oil	0	587	0	-457	0	0	0	0	1	129	1,610
Still Gas	0	453	0	0	0	0	0	0	0	453	0
Miscellaneous Products	3	33	(s)	3	0	0	0	0	0	39	7
Total	19,248	12,662	1,871	-1,332	-4,457	-740	0	12,341	3	14,907	32,563

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 10. PAD District V, Supply and Disposition of Crude Oil and Petroleum Products, January 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 88,502	0	5,278	-5,129	3,884	-21,898	25	64,077	4,577	1,958	84,958
Natural Gas Liquids and LRGs	945	1,048	564	997	0	0	0	765	200	2,590	1,698
Liquefied Petroleum Gases	589	1,048	564	999	0	0	0	618	200	2,383	1,641
Pentanes Plus	356	0	0	-2	0	0	0	147	0	207	57
Other Liquids	317	0	995	-87	0	102	0	2,335	0	-1,008	34,206
Other Hydrocarbons and Alcohol	317	0	0	2	0	0	0	319	0	0	3
Unfinished Oils	0	0	514	984	0	102	0	2,340	0	-740	25,817
Motor Gasoline Blending Components	0	0	481	-1,060	0	0	0	-311	0	-268	8,340
Aviation Gasoline Blending Components	0	0	0	-13	0	0	0	-13	0	0	46
Finished Petroleum Products	0	69,572	1,642	-1,042	0	2,574	0	0	6,570	66,176	54,522
Finished Motor Gasoline	0	30,968	906	-1,787	0	1,835	0	0	2	31,920	21,536
Finished Leaded Motor Gasoline	0	12,687	367	-558	0	1,038	0	0	2	13,532	9,823
Finished Unleaded Motor Gasoline	0	18,281	539	-1,229	0	797	0	0	0	18,388	11,713
Finished Aviation Gasoline	0	197	0	-70	0	0	0	0	0	127	512
Naphtha-Type Jet Fuel	0	1,348	0	105	0	373	0	0	0	1,826	1,534
Kerosene-Type Jet Fuel	0	6,987	97	734	0	170	0	0	122	7,866	5,041
Kerosene	0	178	0	1	0	0	0	0	0	179	251
Distillate Fuel Oil	0	10,123	109	434	0	252	0	0	1,092	9,826	10,815
Residual Fuel Oil	0	10,634	406	-445	0	0	0	0	2,883	7,711	8,664
Naphtha and Other Oils for Petro. Feed.	0	758	0	55	0	0	0	0	69	744	523
Special Naphthas	0	59	16	25	0	0	0	0	1	99	206
Lubricants	0	249	97	77	0	-56	0	0	33	334	1,330
Waxes	0	78	4	-7	0	0	0	0	2	72	58
Petroleum Coke	0	3,503	0	-69	0	0	0	0	2,364	1,070	2,116
Asphalt and Road Oil	0	908	3	-112	0	0	0	0	1	798	1,720
Still Gas	0	3,427	0	0	0	0	0	0	0	3,427	0
Miscellaneous Products	0	155	5	17	0	0	0	0	2	175	216
Total	89,764	70,620	8,479	-5,261	3,884	-19,222	25	67,177	11,347	69,715	175,384

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

and State, for the Most Currently Available Month,[1] November 1983
(Thousand Barrels)

PAD District and State	Production	
	Total	Daily Average
PAD District I		
Florida	1,406	47
New York	E 68	E 2
Pennsylvania	E 352	E 12
Virginia	E 4	E 0
West Virginia	263	9
Adjustment [2]	151	5
Total PAD District I	E 2,244	E 75
PAD District II		
Illinois	2,370	79
Indiana	435	15
Kansas	5,932	198
Kentucky	641	21
Michigan	2,608	87
Missouri	E 17	E 1
Nebraska	520	17
North Dakota	4,184	139
Ohio	E 1,197	E 40
Oklahoma	13,854	462
South Dakota	97	3
Tennessee	74	2
Adjustment [2]	-609	-20
Total PAD District II	E 31,320	E 1,044
PAD District III		
Alabama	1,569	52
Arkansas	E 1,549	E 52
Louisiana		
Gulf Coast	E 37,832	E 1,261
Rest of State	2,779	93
Total Louisiana	E 40,611	E 1,354
Mississippi	2,656	89
New Mexico		
Northwestern	548	18
Southeastern	5,747	192
Total New Mexico	6,295	210
Texas		
TRRC District 01	2,016	67
TRRC District 02	3,349	112
TRRC District 03	E 10,018	E 334
TRRC District 04	2,312	77
TRRC District 05	751	25
TRRC District 06, excluding East Texas	3,467	116
TRRC District 07B	2,867	96
TRRC District 07C	2,803	93
TRRC District 08	19,094	636
TRRC District 08A	17,961	599
TRRC District 09	3,219	107
TRRC District 10	1,808	60
East Texas	4,143	138
Total Texas	E 73,808	E 2,460
Adjustment [2]	-2,390	-80
Total PAD District III	E 124,098	E 4,137
PAD District IV		
Colorado	E 2,528	E 84
Montana	2,382	79
Utah	E 2,367	E 79
Wyoming	9,295	310
Adjustment [2]	-327	-11
Total PAD District IV	E 16,245	E 541
PAD District V		
Alaska		
South Alaska	1,993	66
North Slope	49,609	1,654
Adjustment for Alaska[2]	-215	-7
Total Alaska	51,387	1,713
Arizona	18	1
California		
Central Coastal	6,227	208
East Central	20,707	690
North	15	1
South	6,365	212
Total California	33,314	1,110
Nevada	104	3
Adjustment for Arizona, California, and Nevada[2]	-22	-1
Total PAD District V	84,801	2,827
United States Total	E 258,708	E 8,624

See footnotes at end of table.

—Continued

---

[1] Includes the following offshore production (thousand barrels):
Alaska: State - 1,730;
California: Federal - 2,533, State - 3,082;
Louisiana: Federal - E25,860, State - 1,960;
Texas: Federal - E1,593, State- 186;
U.S. Total - E36,944.

[2] These adjustments are used to reconcile the national and PADD level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PADD level figures published in a previous issue. Final data at the State, PAD District and national levels will be published without adjustments in the Petroleum Supply Annual.

Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.
E = Estimated.
- Data not available.

Table 12. Natural Gas Processing Plant Production of Petroleum Products by PAD District,[1] January 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Natural Gas Liquids	396	565	961	0	1,928	479	7,055	9,462	19,797	2,473	7,698	599	4,170	34,737	2,869	945	48,974
Pentanes Plus	48	64	112	0	431	120	1,242	1,793	3,247	331	1,387	171	706	5,842	826	356	8,929
Liquefied Petroleum Gases	348	501	849	0	1,497	359	5,813	7,669	16,550	2,142	6,311	428	3,464	28,895	2,043	589	40,045
Ethane	102	161	263	0	507	3	2,292	2,802	6,739	1,076	2,954	71	1,121	11,961	254	2	15,282
Propane	148	235	383	0	651	203	2,277	3,131	6,321	761	2,074	185	1,407	10,748	1,158	378	15,798
Normal Butane	76	76	152	0	200	125	926	1,251	2,500	135	670	108	703	4,116	503	148	6,170
Isobutane	22	29	51	0	139	28	318	485	990	170	613	64	233	2,070	128	61	2,795
Finished Petroleum Products	48	0	48	0	3	0	13	16	36	41	1	18	5	101	7	0	172
Finished Motor Gasoline	48	0	48	0	0	0	0	0	10	0	0	0	0	10	4	0	62
Finished Leaded Motor Gasoline	30	0	30	0	0	0	0	0	10	0	0	0	0	10	4	0	44
Finished Unleaded Motor Gasoline	18	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	1	0	0	0	2	3	0	0	3
Distillate Fuel Oil	0	0	0	0	0	0	0	0	1	34	0	0	0	35	0	0	35
Special Naphthas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	3	0	13	16	24	7	1	18	3	53	3	0	72
Total Production	444	565	1,009	0	1,931	479	7,068	9,478	19,833	2,514	7,699	617	4,175	34,838	2,876	945	49,146

[1] Production represents quantity of natural gas processing plant output less input to fractionating facilities.

Source: See Explanatory Notes on Data Collection and Estimation.

(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil (including lease condensate)	29,648	2,331	31,979	1,755	54,108	8,434	17,916	82,213	14,863	84,127	61,995	4,884	2,309	168,178	12,498	64,077	358,945
Pentanes Plus	26	0	26	0	631	189	779	1,599	935	2,397	603	253	77	4,265	136	147	6,173
Liquefied Petroleum Gases	48	18	66	190	2,950	449	910	4,499	778	1,994	1,899	114	73	4,858	291	618	10,332
Ethane	0	0	0	0	6	0	0	6	0	2	39	0	0	41	0	0	47
Propane	10	0	10	0	81	0	0	81	0	3	45	0	0	48	9	10	158
Normal Butane	9	18	27	107	1,997	395	515	3,014	475	1,411	838	29	40	2,793	246	477	6,557
Isobutane	29	0	29	83	866	54	395	1,398	303	578	977	85	33	1,976	36	131	3,570
Other Liquids																	
Other Hydrocarbons and Alcohol	126	0	126	0	202	0	0	202	0	201	285	0	5	491	7	319	1,145
Unfinished Oil (net)	4,750	48	4,798	8	519	-53	140	614	346	2,009	-1,951	143	74	621	-457	2,340	7,916
Motor Gasoline Blending Components (net)	-181	21	-160	4	766	34	-25	779	-72	1,393	656	6	14	1,997	-134	-311	2,171
Aviation Gasoline Blending Components (net)	-13	0	-13	0	15	0	4	19	0	-21	7	0	0	-14	0	-13	-21
Total Input to Refineries	34,404	2,418	36,822	1,957	59,191	9,053	19,724	89,925	16,850	92,100	63,494	5,400	2,552	180,396	12,341	67,177	386,661
Crude Oil Distillation																	
Gross Input (daily average)	983	75	1,058	57	1,757	286	599	2,699	491	2,827	2,012	159	75	5,565	405	2,073	11,799
Operable Capacity (daily average)	1,473	174	1,647	66	2,318	295	791	3,470	613	3,867	2,539	295	107	7,421	555	3,102	16,196
Operating Ratio (percent)[1]	66.7	43.1	64.2	85.8	75.8	96.7	75.7	77.8	80.1	73.1	79.2	54.0	70.5	75.0	73.0	66.8	72.9
Crude Oil Qualities																	
Sulfur Content, Weighted Average (percent)	.86	.40	.83	.48	.83	1.83	.62	.88	.57	.92	.95	1.36	.70	.91	.85	1.03	.92
API Gravity, Weighted Average	31.39	40.42	32.05	37.60	35.13	30.78	37.81	35.32	37.41	35.30	33.10	33.76	39.45	34.68	36.38	25.32	32.94
Operable Capacity (daily average)	1,473	174	1,647	66	2,318	295	791	3,470	613	3,867	2,539	295	107	7,421	555	3,102	16,196
Operating	1,220	110	1,330	66	2,142	295	744	3,247	562	3,569	2,363	204	107	6,805	528	2,841	14,750
Idle	253	64	317	0	176	0	47	223	51	297	176	91	0	616	28	261	1,446

[1] Represents gross input divided by operable capacity.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 14. Refinery Production of Petroleum Products by PAD District, January 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	1,109	21	1,130	40	1,550	219	163	1,972	167	2,161	3,153	67	82	5,630	77	1,048	9,857
For Petrochemical Feedstock Use	438	0	438	0	182	0	35	217	42	1,336	1,929	15	0	3,322	-27	223	4,173
For Other Uses	671	21	692	40	1,368	219	128	1,755	125	825	1,224	52	82	2,308	104	825	5,684
Ethane	11	0	11	0	0	0	0	0	0	535	10	0	12	557	0	0	568
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	394	1	0	0	395	0	0	395
For Other Uses	11	0	11	0	0	0	0	0	0	141	9	0	12	162	0	0	173
Propane	1,006	21	1,027	40	1,517	219	399	2,175	172	2,058	1,519	44	62	3,855	156	858	8,071
For Petrochemical Feedstock Use	361	0	361	0	155	0	35	190	42	1,049	232	0	0	1,323	0	132	2,006
For Other Uses	645	21	666	40	1,362	219	364	1,985	130	1,009	1,287	44	62	2,532	156	726	6,065
Normal Butane	92	0	92	0	6	0	-236	-230	-5	-397	1,624	23	8	1,253	-80	190	1,225
For Petrochemical Feedstock Use	77	0	77	0	0	0	0	0	0	-72	1,696	15	0	1,639	-28	91	1,779
For Other Uses	15	0	15	0	6	0	-236	-230	-5	-325	-72	8	8	-386	-52	99	-554
Isobutane for Petro. Feed. Use	0	0	0	0	27	0	0	27	0	-35	0	0	0	-35	1	0	-7
Finished Motor Gasoline	16,292	930	17,222	1,181	33,666	4,852	10,815	50,514	9,100	41,408	28,539	1,756	1,157	81,960	6,433	30,968	187,097
Finished Leaded Motor Gasoline	5,196	427	5,623	528	13,405	2,399	5,956	22,288	4,704	15,586	11,519	816	610	33,235	3,770	12,687	77,603
Finished Unleaded Motor Gasoline	11,096	503	11,599	653	20,261	2,453	4,859	28,226	4,396	25,822	17,020	940	547	48,725	2,663	18,281	109,494
Finished Aviation Gasoline	0	0	0	0	88	0	8	96	27	146	94	0	0	267	11	197	571
Naphtha-Type Jet Fuel	617	36	653	31	352	184	306	873	630	730	475	154	312	2,301	384	1,348	5,559
Kerosene-Type Jet Fuel	872	0	872	-3	3,603	454	569	4,623	887	5,802	7,126	-2	46	13,859	559	6,987	26,900
Kerosene	578	119	697	106	1,138	95	-15	1,324	61	1,594	1,429	121	59	3,264	142	178	5,605
Distillate Fuel Oil	8,288	608	8,896	417	11,628	2,292	5,562	19,899	3,342	20,134	12,213	1,434	698	37,821	3,350	10,123	80,089
Residual Fuel Oil	4,422	184	4,606	67	1,947	-297	450	2,167	660	7,570	3,240	275	75	11,820	305	10,634	29,532
Naphtha < 400 Deg. For Petro. Feed. Use	356	0	356	0	483	0	70	553	526	1,795	94	40	0	2,455	0	168	3,532
Other Oils > 400 Deg. For Petro. Feed. Use	2	0	2	0	76	0	0	76	108	3,736	2,700	0	0	6,544	0	590	7,212
Special Naphthas	14	30	44	0	250	0	163	413	21	856	-17	152	0	1,012	2	59	1,530
Lubricants	325	261	586	0	510	0	361	871	0	1,581	612	379	0	2,572	37	249	4,315
Waxes	19	53	72	0	-17	0	27	10	6	66	71	49	0	192	8	78	360
Petroleum Coke	1,075	18	1,093	26	2,173	499	553	3,251	278	2,430	2,628	90	11	5,437	281	3,503	13,565
Marketable	264	0	264	0	1,132	379	369	1,880	45	1,153	1,906	77	0	3,181	131	2,708	8,164
Catalyst	811	18	829	26	1,041	120	184	1,371	233	1,277	722	13	11	2,256	150	795	5,401
Asphalt and Road Oil	534	22	556	88	1,114	862	448	2,512	422	152	527	667	88	1,856	587	908	6,419
Still Gas	1,556	92	1,648	55	2,377	310	696	3,438	423	4,571	2,691	213	43	7,941	453	3,427	16,907
For Petrochemical Feedstock Use	204	0	204	0	2	0	0	2	3	375	157	0	0	535	27	160	928
For Other Uses	1,352	92	1,444	55	2,375	310	696	3,436	420	4,196	2,534	213	43	7,406	426	3,267	15,979
Miscellaneous Products	123	35	158	3	152	34	53	242	92	1,116	637	37	0	1,882	33	155	2,470
Fuel Use	3	22	25	0	1	0	8	9	0	24	306	0	0	330	3	19	386
Non-Fuel Use	120	13	133	3	151	34	45	233	92	1,092	331	37	0	1,552	30	136	2,084
Total Production	36,182	2,409	38,591	2,011	61,090	9,504	20,229	92,834	16,750	95,848	66,212	5,432	2,571	186,813	12,662	70,620	401,520
Processing Gain(-) or Loss(+)[1]	-1,778	9	-1,769	-54	-1,899	-451	-505	-2,909	100	-3,748	-2,718	-32	-19	-6,417	-321	-3,443	-14,859

---

[1] Represents the arithmetic difference between input and output.

Note: See Explanatory Note 2.

Source: See Explanatory Notes on Data Collection and Estimation.

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Finished Motor Gasoline[2]	47.3	37.5	46.7	56.0	53.3	49.9	50.7	52.4	49.0	41.1	41.8	27.5	41.5	41.7	50.9	45.5	45.6
Finished Aviation Gasoline[3]	.0	.0	.0	.0	.1	.0	.0	.1	.2	.2	.1	.0	.0	.2	.1	.3	.2
Liquefied Refinery Gases	3.2	.9	3.1	2.3	2.8	2.6	.9	2.4	1.1	2.5	5.3	1.3	3.4	3.3	.6	1.6	2.7
Naphtha-Type Jet Fuel	1.8	1.5	1.8	1.8	.6	2.2	1.7	1.1	4.1	.8	.8	3.1	13.1	1.4	3.2	2.0	1.5
Kerosene-Type Jet Fuel	2.5	0	2.4	-.2	6.6	5.4	3.2	5.6	5.8	6.7	11.9	.0	1.9	8.2	4.6	10.5	7.3
Kerosene	1.7	5.0	1.9	6.0	2.1	1.1	-.1	1.6	.4	1.9	2.4	2.4	2.5	1.9	1.2	.3	1.5
Distillate Fuel Oil	24.1	25.6	24.2	23.7	21.3	27.3	30.8	24.0	22.0	23.4	20.3	28.5	29.3	22.4	27.8	15.2	21.8
Residual Fuel Oil	12.9	7.7	12.5	3.8	3.6	-3.5	2.5	2.6	4.3	8.8	5.4	5.5	3.1	7.0	2.5	16.0	8.0
Naphtha < 400 Deg. F. Petro. Feed. Use	1.0	0	1.0	0	.9	0	.4	.7	3.5	2.1	.2	.8	0	1.5	0	.3	1.0
Other Oils > 400 Deg. F. Petro. Feed. Use	.0	0	.0	0	.1	0	0	.1	.7	4.3	4.5	0	0	3.9	.0	.9	2.0
Special Naphthas	.0	1.3	.1	0	.5	0	.9	.5	.1	1.0	.0	3.0	0	.6	.0	.1	.4
Lubricants	.9	11.0	1.6	0	.9	0	2.0	1.1	.0	1.8	1.0	7.5	0	1.5	.3	.4	1.2
Waxes	.1	2.2	.2	0	.0	0	.1	.0	.0	.1	.1	1.0	0	.1	.1	.1	.1
Petroleum Coke	3.1	.8	3.0	1.5	4.0	6.0	3.1	3.9	1.8	2.8	4.4	1.8	.5	3.2	2.3	5.3	3.7
Asphalt and Road Oil	1.6	.9	1.5	5.0	2.0	10.3	2.5	3.0	2.8	.2	.9	13.3	3.7	1.1	4.9	1.4	1.7
Still Gas	4.5	3.9	4.5	3.1	4.4	3.7	3.9	4.2	2.8	5.3	4.5	4.2	1.8	4.7	3.8	5.2	4.6
Miscellaneous Products	.4	1.5	.4	.2	.3	.4	.3	.3	.6	1.3	1.1	.7	0	1.1	.3	.2	.7
Processing Gain(-) or Loss(+)[4]	-5.2	.4	-4.8	-3.1	-3.5	-5.4	-2.8	-3.5	.7	-4.4	-4.5	-.6	-.8	-3.8	-2.7	-5.2	-4.1

[1] Based on crude oil input and net reruns of unfinished oils.

[2] Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

[3] Based on finished aviation gasoline output plus net output of aviation gasoline blending components.

[4] Represents the difference between Input and Production.

Note: Total may not equal sum of components due to independent rounding.

Note: See Explanatory 2.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 16. Imports of Crude Oil and Petroleum Products by PAD District, January 1984 (Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) [1] [2]	**26,057**	**13,452**	**48,239**	**868**	**5,278**	**93,895**
Natural Gas Liquids	**733**	**5,997**	**845**	**807**	**564**	**8,946**
Pentanes Plus	451	0	42	103	0	596
Liquefied Petroleum Gases	282	5,997	803	703	564	8,350
Ethane	0	2,957	0	0	0	2,957
Propane	150	1,976	338	463	154	3,082
Normal Butane	79	638	296	144	246	1,403
Isobutane	53	426	169	96	164	907
Other Liquids [1]	2,754	346	5,776	0	995	9,870
Unfinished Oils [1]	2,754	346	5,471	0	514	9,085
Motor Gasoline Blending Components	**0**	**0**	**304**	**0**	**481**	**785**
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	45,694	583	4,924	196	1,642	53,038
Finished Motor Gasoline	5,489	22	737	55	906	7,209
Finished Leaded Motor Gasoline	**2,169**	**19**	**478**	**55**	**367**	**3,088**
Finished Unleaded Motor Gasoline	3,320	3	258	(s)	539	4,121
Finished Aviation Gasoline	1	0	0	0	0	1
Naphtha-Type Jet Fuel	438	0	0	0	0	438
Kerosene-Type Jet Fuel	1,318	0	0	0	97	1,415
Bonded Aircraft Fuel	0	0	0	0	0	0
Other	1,318	0	0	0	97	1,415
Kerosene	530	0	6	0	0	536
Distillate Fuel Oil	7,782	108	245	115	109	8,359
Bonded Ships Bunkers	0	0	0	0	0	0
Other	7,782	108	245	115	109	8,359
Residual Fuel Oil	29,779	309	2,366	24	406	32,883
Bonded Ships Bunkers	0	0	0	0	0	0
Other	29,779	309	2,366	24	406	32,883
Naphtha < 400 Deg. for Petro. Feed. Use	6	19	822	0	0	848
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	119	30	264	(s)	16	429
Lubricants	204	9	37	(s)	97	348
Waxes	17	4	3	0	4	27
Asphalt and Road Oil	0	13	1	0	3	17
Miscellaneous Products	11	70	444	(s)	5	530
Total Imports	75,237	20,379	59,784	1,871	8,479	165,749

[1] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[2] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

(Thousand Barrels)

Source	Crude Oil 1	LPG	Unfin-ished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
	All PAD Districts													
Arab OPEC														
Algeria	2,930	0	0	0	0	45	0	428	3,598	0	503	4,575	7,505	242
Kuwait	253	0	0	0	0	0	0	0	0	0	0	0	253	8
Saudi Arabia	13,735	75	49	0	0	0	0	0	499	0	(s)	594	14,359	463
United Arab Emirates	3,212	0	0	0	0	0	0	0	336	0	0	336	3,548	114
Subtotal Arab OPEC	20,130	75	49	0	0	45	0	428	4,434	0	503	5,505	25,665	828
Other OPEC														
Ecuador	1,023	0	0	0	0	0	0	0	301	0	0	301	1,324	43
Gabon	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Indonesia	7,165	455	514	0	150	38	0	39	222	0	24	1,345	8,606	278
Nigeria	7,536	0	0	0	0	0	0	0	0	0	0	0	7,536	243
Venezuela	5,834	0	462	0	2,184	221	0	1,427	6,617	57	167	11,135	16,968	547
Subtotal Other OPEC	21,558	455	976	0	2,333	259	0	1,466	7,140	57	191	12,780	34,434	1,111
Other														
Angola	2,583	0	0	0	0	0	0	0	0	0	0	0	2,583	83
Australia	0	0	0	0	141	27	0	38	321	0	37	564	564	18
Bahamas	0	0	2,118	0	0	270	0	1,312	491	0	513	4,704	4,704	152
Brazil	0	0	0	0	567	0	0	0	349	36	0	951	951	31
Canada	9,088	7,466	351	0	192	0	10	954	784	58	449	9,555	19,351	624
Congo	733	0	0	0	0	0	0	0	177	0	0	177	910	29
Egypt	674	0	0	0	0	0	0	0	0	0	0	0	674	22
France	0	0	(s)	0	0	0	(s)	0	0	0	(s)	1	1	(s)
Ghana	0	0	0	0	0	0	0	0	119	0	0	119	119	4
Liberia	0	0	0	0	0	0	0	0	968	0	0	968	968	31
Malaysia	0	0	125	0	0	0	0	0	0	0	0	125	125	4
Mexico	19,622	354	654	13	220	31	0	552	373	(s)	29	2,153	21,848	705
Netherlands	0	(s)	0	0	243	0	0	452	0	0	(s)	696	696	22
Netherlands Antilles	0	0	2,005	0	258	0	0	0	6,299	0	20	8,581	8,581	277
Norway	2,725	0	0	0	0	0	0	0	0	0	0	0	2,725	88
Oman	0	0	0	0	0	0	0	0	382	0	0	382	382	12
People's Republic of China	629	0	0	481	332	0	0	0	0	0	0	814	1,442	47
Peru	0	0	0	0	0	0	0	0	1,221	0	0	1,221	1,221	39
Puerto Rico	0	0	232	0	473	157	0	394	0	202	188	1,645	1,645	53
Romania	0	0	0	0	0	0	0	0	0	0	280	280	280	9
Spain	0	0	0	0	0	0	0	0	364	0	(s)	364	364	12
Trinidad and Tobago	1,412	0	13	0	0	0	0	0	244	7	0	264	1,676	54
Tunisia	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
United Kingdom	10,996	0	216	291	202	0	0	0	128	0	5	842	11,838	382
Virgin Islands	0	0	804	0	1,442	1,031	520	2,278	5,962	0	51	12,089	12,089	390
Zaire	1,069	0	0	0	0	0	0	0	0	0	0	0	1,069	34
Other Western Hemisphere	0	0	78	0	0	0	6	0	979	60	2	1,124	1,124	36
Other Eastern Hemisphere	2,676	(s)	1,464	0	805	32	0	484	2,149	9	100	5,042	7,719	249
Subtotal Other	52,207	7,820	8,060	785	4,876	1,548	536	6,465	21,309	372	1,672	52,661	105,650	3,408
Total Imports	93,895	8,350	9,085	785	7,209	1,853	536	8,359	32,883	429	2,366	70,947	165,749	5,347

See footnotes at end of table.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, January 1984 (Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfin-ished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
							PAD District I							
Arab OPEC														
Algeria	503	0	0	0	0	45	0	428	3,598	0	0	4,072	4,575	148
Kuwait	251	0	0	0	0	0	0	0	0	0	0	0	251	8
Saudi Arabia	1,876	75	49	0	0	0	0	0	0	0	(s)	94	2,001	65
United Arab Emirates	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Arab OPEC	2,630	75	49	0	0	45	0	428	3,598	0	(s)	4,167	6,827	220
Other OPEC														
Ecuador	0	0	0	0	0	0	0	0	301	0	0	301	301	10
Indonesia	2,546	0	0	0	0	0	0	0	0	0	0	0	2,546	82
Nigeria	3,801	0	0	0	0	0	0	0	0	0	0	0	3,801	123
Venezuela	1,205	0	0	0	1,679	221	0	1,427	6,290	0	0	9,617	10,822	349
Subtotal Other OPEC	7,552	0	0	0	1,679	221	0	1,427	6,591	0	0	9,918	17,470	564
Other														
Angola	1,528	0	0	0	0	0	0	0	0	0	0	0	1,528	49
Australia	0	0	0	0	0	0	0	0	254	0	0	254	254	8
Bahamas	0	0	0	0	0	270	0	1,312	491	0	(s)	2,073	2,073	67
Brazil	0	0	0	0	567	0	0	0	349	0	0	915	915	30
Canada	932	207	5	0	83	0	10	709	451	12	199	1,653	2,607	84
Congo	733	0	0	0	0	0	0	0	177	0	0	177	910	29
Egypt	0	0	0	0	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Ghana	0	0	0	0	0	0	0	0	119	0	0	119	119	4
Liberia	0	0	0	0	0	0	0	0	968	0	0	968	968	31
Mexico	2,840	0	0	0	0	31	0	356	0	0	0	387	3,227	104
Netherlands	0	0	0	0	243	0	0	452	0	0	(s)	696	696	22
Netherlands Antilles	0	0	1,747	0	0	0	0	0	6,299	0	3	8,049	8,049	260
Norway	2,206	0	0	0	0	0	0	0	0	0	0	0	2,206	71
People's Republic of China	629	0	0	0	0	0	0	0	0	0	0	0	629	20
Peru	0	0	0	0	0	0	0	0	1,221	0	0	1,221	1,221	39
Puerto Rico	0	0	232	0	473	157	0	394	0	100	188	1,544	1,544	50
Romania	0	0	0	0	0	0	0	0	0	0	280	280	280	9
Spain	0	0	0	0	0	0	0	0	364	0	(s)	364	364	12
Trinidad and Tobago	0	0	13	0	0	0	0	0	244	7	0	264	264	9
Tunisia	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
United Kingdom	5,453	0	216	0	202	0	0	0	128	0	5	551	6,003	194
Virgin Islands	0	0	492	0	1,442	1,031	520	2,278	5,928	0	0	11,692	11,692	377
Zaire	1,069	0	0	0	0	0	0	0	0	0	0	0	1,069	34
Other Western Hemisphere	0	0	0	0	0	0	0	0	979	0	(s)	979	979	32
Other Eastern Hemisphere	484	(s)	0	0	800	0	0	426	1,618	0	15	2,859	3,343	108
Subtotal Other	15,875	207	2,704	0	3,810	1,489	530	5,927	19,589	119	690	35,044	50,941	1,643
Total Imports	26,057	282	2,754	0	5,489	1,756	530	7,782	29,779	119	690	49,128	75,237	2,427

See footnotes at end of table.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, January 1984 (Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
	PAD District II													
Arab OPEC														
Algeria	186	0	0	0	0	0	0	0	0	0	0	0	186	6
Subtotal Arab OPEC	186	0	0	0	0	0	0	0	0	0	0	0	186	6
Other OPEC														
Nigeria	527	0	0	0	0	0	0	0	0	0	0	0	527	17
Venezuela	417	0	0	0	0	0	0	0	0	0	0	0	417	13
Subtotal Other OPEC	945	0	0	0	0	0	0	0	0	0	0	0	945	30
Other														
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	6,626	5,997	346	0	22	0	0	108	309	30	115	6,501	13,552	437
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	4,186	0	0	0	0	0	0	0	0	0	0	0	4,186	135
Netherlands	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Norway	519	0	0	0	0	0	0	0	0	0	0	0	519	17
Trinidad and Tobago	462	0	0	0	0	0	0	0	0	0	0	0	462	15
United Kingdom	529	0	0	0	0	0	0	0	0	0	(s)	(s)	530	17
Other Eastern Hemisphere	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Subtotal Other	12,322	5,997	346	0	22	0	0	108	309	30	115	6,501	19,248	621
Total Imports	13,452	5,997	346	0	22	0	0	108	309	30	115	6,501	20,379	657
	PAD District III													
Arab OPEC														
Algeria	2,241	0	0	0	0	0	0	0	0	0	503	503	2,744	89
Kuwait	2	0	0	0	0	0	0	0	0	0	0	0	2	(s)
Saudi Arabia	11,859	0	0	0	0	0	0	0	499	0	0	499	12,358	399
United Arab Emirates	3,212	0	0	0	0	0	0	0	336	0	0	336	3,548	114
Subtotal Arab OPEC	17,314	0	0	0	0	0	0	0	836	0	503	1,339	18,653	602
Other OPEC														
Ecuador	1,023	0	0	0	0	0	0	0	0	0	0	0	1,023	33
Gabon	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Indonesia	593	455	0	0	0	0	0	0	0	0	24	383	1,072	35
Nigeria	3,208	0	0	0	0	0	0	0	0	0	0	0	3,208	103
Venezuela	4,211	0	462	0	258	0	0	0	327	57	167	1,272	5,483	177
Subtotal Other OPEC	9,035	455	462	0	258	0	0	0	327	57	191	1,655	10,786	348
Other														
Angola	1,055	0	0	0	0	0	0	0	0	0	0	0	1,055	34
Australia	0	0	0	0	0	0	0	0	0	0	36	36	36	1
Bahamas	0	0	2,118	0	0	0	0	0	0	0	513	2,631	2,631	85
Brazil	0	0	0	0	0	0	0	0	0	36	0	36	36	1
Canada	(s)	0	0	0	0	0	0	0	0	0	26	26	26	1
Egypt	674	0	0	0	0	0	0	0	0	0	0	0	674	22
France	0	0	(s)	0	0	0	(s)	0	0	0	(s)	(s)	(s)	(s)
Malaysia	0	0	125	0	0	0	0	0	0	0	0	125	125	4

See footnotes at end of table.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, January 1984 (Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
							PAD District III							
Other														
Mexico	12,595	348	654	13	220	0	0	190	360	(s)	22	1,734	14,402	465
Netherlands Antilles	0	0	258	0	258	0	0	0	0	0	0	516	516	17
Norway	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oman	0	0	0	0	0	0	0	0	382	0	0	382	382	12
Puerto Rico	0	0	0	0	0	0	0	0	0	102	0	102	102	3
Spain	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	950	0	0	0	0	0	0	0	0	0	0	0	950	31
United Kingdom	5,014	0	0	291	0	0	0	0	0	0	(s)	291	5,305	171
Virgin Islands	0	0	313	0	0	0	0	0	34	0	51	398	398	13
Zaire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Western Hemisphere	0	0	78	0	0	0	6	0	0	60	1	145	145	5
Other Eastern Hemisphere	1,601	0	1,464	0	0	0	0	55	427	9	5	1,960	3,561	115
Subtotal Other	21,889	348	5,009	304	478	0	6	245	1,203	207	654	8,382	30,345	979
Total Imports	48,239	803	5,471	304	737	0	6	245	2,366	264	1,348	11,376	59,784	1,929
							PAD District IV							
Other														
Canada	868	703	0	0	55	0	0	115	24	(s)	104	906	1,871	60
Other Eastern Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Other	868	703	0	0	55	0	0	115	24	(s)	104	906	1,871	60
Total Imports	868	703	0	0	55	0	0	115	24	(s)	104	906	1,871	60
							PAD District V							
Other OPEC														
Indonesia	4,026	0	514	0	150	38	0	39	222	0	(s)	962	4,988	161
Venezuela	0	0	0	0	246	0	0	0	0	0	0	246	246	8
Subtotal Other OPEC	4,026	0	514	0	396	38	0	39	222	0	(s)	1,208	5,234	169
Other														
Australia	0	0	0	0	141	27	0	38	67	0	(s)	274	274	9
Canada	662	559	0	0	32	0	0	22	0	16	4	469	1,295	42
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	0	6	0	0	0	0	0	6	14	0	7	32	32	1
Netherlands	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Netherlands Antilles	0	0	0	0	0	0	0	0	0	0	17	17	17	1
People's Republic of China	0	0	0	481	332	0	0	0	0	0	0	814	814	26
United Kingdom	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	590	0	0	0	4	32	0	3	103	0	81	224	814	26
Subtotal Other	1,252	564	0	481	510	59	0	70	184	16	109	1,829	3,245	105
Total Imports	5,278	564	514	481	906	97	0	109	406	16	109	3,037	8,479	274

---

1 Includes crude oil imported for storage in the Strategic Petroleum Reserve.

2 Includes aviation gasoline, waxes, asphalt, lubricants, pentanes plus, napthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

Table 18. Exports of Crude Oil and Petroleum Products by PAD District, January 1984 (Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) [1]	0	162	0	0	4,577	4,739
Natural Gas Liquids	47	(s)	473	0	200	719
Pentanes Plus	0	(s)	0	0	0	(s)
Liquefied Petroleum Gases	47	(s)	473	0	200	719
Ethane	(s)	(s)	(s)	0	0	(s)
Propane	20	(s)	431	0	80	531
Normal Butane	26	(s)	42	0	120	189
Isobutane	0	(s)	0	0	0	(s)
Finished Motor Gasoline	22	(s)	(s)	0	2	25
Naphtha-Type Jet Fuel	0	0	0	0	0	0
Kerosene-Type Jet Fuel	97	100	0	0	122	318
Kerosene	2	0	(s)	0	0	2
Distillate Fuel Oil	1	1	154	0	1,092	1,248
Residual Fuel Oil	250	0	1,561	0	2,883	4,695
Naphtha < 400 Deg. for Petrochem. Feedstock	45	9	70	2	68	194
Other Oils > 400 Deg. for Petrochem. Feedstock	(s)	0	411	0	1	412
Special Naphthas	4	9	32	0	1	46
Lubricants	80	15	175	1	33	303
Waxes	6	(s)	32	0	2	40
Petroleum Coke	269	17	2,406	0	2,364	5,055
Asphalt	1	2	(s)	1	1	5
Miscellaneous Products	17	2	10	0	2	31
Total Product Exports	840	155	5,324	3	6,770	13,093
Total Exports	840	317	5,324	3	11,347	17,832

---

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 19. Exports of Crude Oil and Petroleum Products by Destination, January 1984 (Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	(s)	0	0	0	0	0	12	(s)	0	0	(s)	12	(s)
Australia	0	(s)	0	0	1	353	11	6	(s)	228	1	6	604	19
Bahamas	0	5	1	0	190	0	0	1	(s)	0	0	(s)	197	6
Bahrain	0	0	0	0	0	0	0	(s)	0	64	0	0	64	2
Belgium & Luxembourg	0	(s)	0	0	0	0	(s)	4	(s)	787	0	3	794	26
Brazil	0	1	0	0	0	0	0	2	(s)	0	0	(s)	3	(s)
Cameroon	0	0	0	0	0	0	0	(s)	0	30	0	0	30	1
Canada	162	3	21	180	661	821	12	49	2	202	2	32	2,146	69
Chile	0	0	0	0	0	0	0	2	(s)	(s)	0	1	3	(s)
China (Taiwan)	0	1	0	0	0	492	(s)	10	(s)	1	(s)	1	505	16
Colombia	0	(s)	0	0	0	0	(s)	9	12	(s)	0	1	21	1
Costa Rica	0	21	0	0	0	0	(s)	4	(s)	0	0	1	26	1
Denmark	0	(s)	0	0	0	0	0	(s)	(s)	0	0	1	1	(s)
Dominican Republic	0	49	0	0	0	0	0	(s)	0	0	0	(s)	49	2
Ecuador	0	40	0	0	153	(s)	(s)	1	(s)	0	(s)	1	196	6
Egypt	0	0	0	0	(s)	0	0	1	0	0	0	(s)	1	(s)
El Salvador	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Finland	0	0	0	0	0	0	0	(s)	0	0	0	1	1	(s)
France	0	0	0	0	1	119	(s)	1	1	308	0	325	756	24
French Pacific Isl	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Ghana	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Guatemala	0	83	0	0	0	0	2	3	(s)	0	(s)	(s)	88	3
Guinea	0	(s)	0	0	0	120	0	1	0	0	0	0	122	4
Honduras	0	(s)	0	0	0	0	1	2	(s)	0	0	(s)	4	(s)
Hong Kong	0	(s)	0	0	0	0	0	1	(s)	0	(s)	1	2	(s)
India	0	0	0	0	0	0	0	(s)	(s)	0	0	9	10	(s)
Indonesia	0	0	0	0	(s)	0	(s)	5	0	0	(s)	1	6	(s)
Iran	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Israel	0	(s)	0	0	0	0	(s)	(s)	(s)	0	0	(s)	1	(s)
Italy	0	1	0	0	0	310	0	1	(s)	520	0	36	868	28
Ivory Coast	0	0	0	0	0	40	0	(s)	0	0	0	0	40	1
Jamaica	0	13	0	0	0	0	(s)	7	0	0	0	(s)	21	1
Japan	0	2	0	0	21	1,003	3	4	2	1,273	0	40	2,349	76
Jordan	0	(s)	0	0	0	0	0	(s)	0	0	0	0	1	(s)
Korea, Republic of	0	1	0	0	0	0	(s)	3	(s)	286	0	57	347	11
Kuwait	0	0	0	0	0	0	(s)	1	0	0	0	(s)	2	(s)
Lebanon	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Liberia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malaysia	0	0	0	0	0	0	0	(s)	(s)	0	0	(s)	1	(s)
Mexico	0	442	3	41	0	0	3	81	9	43	0	6	627	20
Netherlands	0	(s)	0	0	0	306	8	7	1	367	0	32	720	23
Netherlands Antilles	0	(s)	0	0	0	251	(s)	1	0	0	0	0	252	8
New Zealand	0	0	0	0	0	0	1	2	(s)	127	0	3	133	4
Nicaragua	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Nigeria	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Norway	0	0	0	0	0	0	0	(s)	0	73	0	(s)	73	2
Pacific Trust Terr.	0	(s)	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Panama	0	15	0	0	0	150	(s)	3	(s)	0	0	(s)	168	5
Peru	0	0	0	0	221	0	0	2	(s)	0	0	(s)	223	7
Philippines	0	0	0	0	0	0	1	1	(s)	0	0	1	2	(s)
Puerto Rico	698	5	0	0	0	(s)	(s)	15	1	0	(s)	5	726	23
Rep. of South Africa	0	0	0	0	0	0	(s)	1	8	83	(s)	57	149	5

See footnotes at end of table.

Table 19. Exports of Crude Oil and Petroleum Products by Destination, January 1984
(Thousand Barrels)

(continued)

Destination	Crude Oil [1]	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other[2]	Total	Total (Daily Average)
Saudi Arabia	0	2	0	0	0	0	(s)	11	0	0	0	4	16	1
Singapore	0	(s)	0	0	0	0	2	2	(s)	0	(s)	3	6	(s)
Spain	0	1	0	0	0	0	0	(s)	(s)	303	0	1	305	10
Surinam	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Sweden	0	1	0	0	0	0	0	1	(s)	0	0	2	4	(s)
Switzerland	0	0	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
Thailand	0	(s)	0	0	0	0	0	1	(s)	0	0	(s)	1	(s)
Trinidad and Tobago	0	0	0	97	0	0	(s)	2	(s)	0	(s)	(s)	99	3
Turkey	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
United Arab Emirates	0	0	0	0	0	0	0	24	0	58	0	(s)	83	3
United Kingdom	0	1	0	0	(s)	0	1	1	(s)	2	(s)	2	7	(s)
U.S.S.R.	0	0	0	0	0	0	0	(s)	0	83	0	0	83	3
Uruguay	0	0	0	0	0	0	0	(s)	0	0	(s)	0	(s)	(s)
Venezuela	0	1	0	0	0	0	(s)	2	1	93	(s)	1	97	3
Virgin Islands	2,932	13	0	0	0	729	0	(s)	0	0	0	0	3,674	119
West Germany	0	0	0	0	0	0	0	2	1	125	0	1	129	4
Yugoslavia	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Other	947	18	(s)	0	(s)	0	(s)	8	0	0	(s)	2	976	31
Total	4,739	719	25	318	1,248	4,695	46	303	40	5,055	5	639	17,832	575

---

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

[2] Includes kerosene, naptha less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, January 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil (Incl. lease condensate)																	
Refinery	--	--	14,616	--	--	--	--	13,758	--	--	--	--	--	49,900	1,849	26,292	106,415
Tank Farms and Pipelines	--	--	916	--	--	--	--	58,147	--	--	--	--	--	93,127	10,495	33,238	195,923
Leases	--	--	55	--	--	--	--	1,654	--	--	--	--	--	17,439	1,498	1,685	22,331
Strategic Petroleum Reserve[1]	--	--	0	--	--	--	--	0	--	--	--	--	--	384,449	0	0	384,449
Alaskan In-Transit	--	--	0	--	--	--	--	0	--	--	--	--	--	0	0	23,743	23,743
Total	--	--	15,587	--	--	--	--	73,559	--	--	--	--	--	544,915	13,842	84,958	732,861
Total Stocks, All Oils (excl. Crude Oil)																	
Refinery	34,080	2,815	36,895	916	38,990	7,072	14,980	61,958	9,941	72,275	43,847	4,310	1,552	131,925	12,595	62,969	306,342
Bulk Terminal	--	--	99,617	--	--	--	--	79,368	--	--	--	--	--	69,361	3,239	22,667	274,252
Pipeline	--	--	26,580	--	--	--	--	34,923	--	--	--	--	--	38,632	2,654	4,679	107,468
Natural Gas Processing Plant	104	49	153	0	213	61	1,232	1,506	1,562	4,501	720	78	260	7,121	233	111	9,124
Total	--	--	163,245	--	--	--	--	177,755	--	--	--	--	--	247,039	18,721	90,426	697,186
Pentanes Plus																	
Refinery	16	0	16	0	63	30	157	250	55	247	196	67	6	571	12	10	859
Bulk Terminal	--	--	17	--	--	--	--	2,013	--	--	--	--	--	1,939	1	19	3,989
Pipeline	--	--	0	--	--	--	--	368	--	--	--	--	--	1,358	82	5	1,813
Natural Gas Processing Plant	3	8	11	0	43	26	415	484	452	548	197	28	27	1,252	90	23	1,860
Total	--	--	44	--	--	--	--	3,115	--	--	--	--	--	5,120	185	57	8,521
Liquefied Petroleum Gases																	
Refinery	423	14	437	179	1,441	108	479	2,207	201	553	1,746	23	26	2,549	275	564	6,032
Bulk Terminal	--	--	1,355	--	--	--	--	18,184	--	--	--	--	--	44,710	105	989	65,343
Pipeline	--	--	1,211	--	--	--	--	7,162	--	--	--	--	--	5,883	441	0	14,697
Natural Gas Processing Plant	92	41	133	0	168	35	817	1,020	985	3,951	523	48	232	5,739	128	88	7,108
Total	--	--	3,136	--	--	--	--	28,573	--	--	--	--	--	58,881	949	1,641	93,180
Ethane																	
Refinery	12	0	12	0	1	16	0	17	0	8	0	0	0	8	0	0	37
Bulk Terminal	--	--	0	--	--	--	--	3,534	--	--	--	--	--	11,839	0	0	15,373
Pipeline	--	--	0	--	--	--	--	1,652	--	--	--	--	--	1,835	139	0	3,626
Natural Gas Processing Plant	0	0	0	0	23	0	189	212	71	1,520	0	0	19	1,610	2	0	1,824
Total	--	--	12	--	--	--	--	5,415	--	--	--	--	--	15,292	141	0	20,860

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, January 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachian #1	Total	Appa-lachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Propane for Petrochemical Feedstock Use																	
Refinery	41	0	41	0	66	0	0	66	2	8	117	0	0	127	0	0	234
Total	--	--	41	--	--	--	--	66	--	--	--	--	--	127	0	0	234
Propane For Other Uses																	
Refinery	326	5	331	0	706	23	146	875	55	70	827	5	4	961	103	224	2,494
Bulk Terminal	--	--	1,109	--	--	--	--	11,975	--	--	--	--	--	17,699	104	352	31,239
Pipeline	--	--	1,112	--	--	--	--	3,726	--	--	--	--	--	2,504	190	0	7,532
Natural Gas Processing Plant	75	37	112	0	89	20	430	539	445	1,122	384	21	117	2,089	76	67	2,883
Total	--	--	2,664	--	--	--	--	17,115	--	--	--	--	--	23,253	473	643	44,148
Normal Butane For Petro. Feed Use																	
Refinery	0	0	0	0	0	18	0	18	0	12	0	0	0	12	4	2	36
Total	--	--	0	--	--	--	--	18	--	--	--	--	--	12	4	2	36
Normal Butane For Other Uses																	
Refinery	43	9	52	148	449	25	182	804	94	276	403	6	13	792	116	301	2,065
Bulk Terminal	--	--	170	--	--	--	--	1,543	--	--	--	--	--	9,733	1	441	11,888
Pipeline	--	--	99	--	--	--	--	1,191	--	--	--	--	--	1,161	64	0	2,515
Natural Gas Processing Plant	15	3	18	0	31	11	151	193	400	886	86	22	82	1,476	49	15	1,751
Total	--	--	339	--	--	--	--	3,731	--	--	--	--	--	13,162	230	757	18,219
Isobutane																	
Refinery	1	0	1	31	219	26	151	427	50	179	399	12	9	649	52	37	1,166
Bulk Terminal	--	--	76	--	--	--	--	1,132	--	--	--	--	--	5,439	0	196	6,843
Pipeline	--	--	0	--	--	--	--	593	--	--	--	--	--	383	48	0	1,024
Natural Gas Processing Plant	2	1	3	0	25	4	47	76	69	423	53	5	14	564	1	6	650
Total	--	--	80	--	--	--	--	2,228	--	--	--	--	--	7,035	101	239	9,683
Other Hydrocarbons and Alcohol																	
Refinery	81	0	81	0	129	0	0	129	1	88	5	0	0	94	0	3	307
Total	--	--	81	--	--	--	--	129	--	--	--	--	--	94	0	3	307
Unfinished Oils																	
Refinery																	
Naphthas and Lighter	3,692	168	3,860	49	2,575	143	1,581	4,348	760	9,364	5,807	187	110	16,228	472	4,504	29,412
Kerosene and Lighter Gas Oils	1,593	24	1,617	0	2,264	3	574	2,841	492	6,536	2,160	25	5	9,218	490	3,367	17,533
Heavy Gas Oils	4,966	282	5,248	106	4,385	281	1,743	6,515	711	10,420	6,871	155	140	18,297	1,061	12,488	43,609
Residuum	1,776	253	2,029	2	2,970	12	1,278	4,262	313	4,492	3,177	34	0	8,016	495	5,458	20,260
Total	12,027	727	12,754	157	12,194	439	5,176	17,966	2,276	30,812	18,015	401	255	51,759	2,518	25,817	110,814

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, January 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Motor Gasoline Blending Components																	
Refinery	4,608	85	4,693	32	4,952	775	1,589	7,348	1,678	7,692	6,510	154	258	16,292	2,332	8,067	38,732
Bulk Terminal	—	—	14	—	—	—	—	105	—	—	—	—	—	773	0	273	1,165
Pipeline	—	—	0	—	—	—	—	28	—	—	—	—	—	17	0	0	45
Total	—	—	4,707	—	—	—	—	7,481	—	—	—	—	—	17,082	2,332	8,340	39,942
Aviation Gasoline Blending Components																	
Refinery	13	0	13	0	58	0	5	63	0	21	195	0	0	216	0	46	338
Total	—	—	13	—	—	—	—	63	—	—	—	—	—	216	0	46	338
Total Finished Motor Gasoline																	
Refinery	4,802	245	5,047	98	6,104	1,383	2,724	10,309	2,401	8,220	4,616	743	247	16,227	2,848	7,663	42,094
Bulk Terminal	—	—	37,662	—	—	—	—	30,009	—	—	—	—	—	10,998	1,758	11,433	91,860
Pipeline	—	—	14,007	—	—	—	—	15,351	—	—	—	—	—	18,263	1,501	2,440	51,562
Natural Gas Processing Plant	9	0	9	0	0	0	0	0	0	0	0	0	0	0	13	0	22
Total	—	—	56,725	—	—	—	—	55,669	—	—	—	—	—	45,488	6,120	21,536	185,538
Finished Leaded Motor Gasoline																	
Refinery	1,871	125	1,996	38	2,747	793	1,704	5,282	1,258	3,680	2,170	440	154	7,702	1,842	3,343	20,165
Bulk Terminal	—	—	17,488	—	—	—	—	15,954	—	—	—	—	—	5,618	1,092	5,320	45,472
Pipeline	—	—	7,695	—	—	—	—	8,020	—	—	—	—	—	8,777	970	1,160	26,622
Natural Gas Processing Plant	4	0	4	0	0	0	0	0	0	0	0	0	0	0	9	0	13
Total	—	—	27,183	—	—	—	—	29,256	—	—	—	—	—	22,097	3,913	9,823	92,272
Finished Unleaded Motor Gasoline																	
Refinery	2,931	120	3,051	60	3,357	590	1,020	5,027	1,143	4,540	2,446	303	93	8,525	1,006	4,320	21,929
Bulk Terminal	—	—	20,174	—	—	—	—	14,055	—	—	—	—	—	5,380	666	6,113	46,388
Pipeline	—	—	6,312	—	—	—	—	7,331	—	—	—	—	—	9,486	531	1,280	24,940
Natural Gas Processing Plant	5	0	5	0	0	0	0	0	0	0	0	0	0	0	4	0	9
Total	—	—	29,542	—	—	—	—	26,413	—	—	—	—	—	23,391	2,207	11,713	93,266
Finished Aviation Gasoline																	
Refinery	36	0	36	0	139	0	10	149	113	320	150	0	0	583	37	227	1,032
Bulk Terminal	—	—	452	—	—	—	—	375	—	—	—	—	—	137	7	264	1,235
Pipeline	—	—	14	—	—	—	—	49	—	—	—	—	—	26	0	21	110
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	55	0	0	0	0	55	0	0	55
Total	—	—	502	—	—	—	—	573	—	—	—	—	—	801	44	512	2,432

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, January 1984
(Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Naphtha-Type Jet Fuel																	
Refinery	357	31	388	0	429	96	162	687	280	719	326	145	144	1,614	190	607	3,486
Bulk Terminal	--	--	296	--	--	--	--	614	--	--	--	--	--	206	15	469	1,600
Pipeline	--	--	119	--	--	--	--	172	--	--	--	--	--	436	49	458	1,234
Total	--	--	803	--	--	--	--	1,473	--	--	--	--	--	2,256	254	1,534	6,320
Kerosene-Type Jet Fuel																	
Refinery	1,112	0	1,112	29	1,110	128	54	1,321	257	2,498	2,114	5	52	4,926	248	3,060	10,667
Bulk Terminal	--	--	3,089	--	--	--	--	2,888	--	--	--	--	--	1,002	90	1,434	8,503
Pipeline	--	--	2,953	--	--	--	--	2,360	--	--	--	--	--	4,101	124	547	10,085
Total	--	--	7,154	--	--	--	--	6,569	--	--	--	--	--	10,029	462	5,041	29,255
Kerosene																	
Refinery	186	61	247	0	407	34	245	686	62	699	574	34	44	1,413	13	182	2,541
Bulk Terminal	--	--	2,455	--	--	--	--	633	--	--	--	--	--	340	28	69	3,525
Pipeline	--	--	379	--	--	--	--	203	--	--	--	--	--	858	0	0	1,440
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	3	0	0	0	1	4	0	0	4
Total	--	--	3,081	--	--	--	--	1,522	--	--	--	--	--	2,615	41	251	7,510
Distillate Fuel Oils																	
Refinery	4,424	298	4,722	47	5,454	1,527	2,744	9,772	1,037	8,170	3,049	679	202	13,137	1,915	4,907	34,453
Bulk Terminal	--	--	30,776	--	--	--	--	18,201	--	--	--	--	--	4,134	1,046	4,851	59,008
Pipeline	--	--	7,897	--	--	--	--	9,173	--	--	--	--	--	7,413	457	1,057	25,997
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	2
Total	--	--	43,395	--	--	--	--	37,146	--	--	--	--	--	24,686	3,418	10,815	119,460
Residual Fuel Oils																	
Refinery	2,181	97	2,278	12	1,651	220	164	2,047	344	4,927	2,033	180	46	7,530	412	6,765	19,032
Bulk Terminal	--	--	18,692	--	--	--	--	1,577	--	--	--	--	--	4,229	0	1,761	26,259
Pipeline	--	--	0	--	--	--	--	0	--	--	--	--	--	1	0	138	139
Total	--	--	20,970	--	--	--	--	3,624	--	--	--	--	--	11,760	412	8,664	45,430
Naphtha < 400 Deg. Petro. Feedstock																	
Refinery	136	0	136	0	78	0	58	136	114	683	307	58	0	1,162	0	131	1,565
Total	136	0	136	0	78	0	58	136	114	683	307	58	0	1,162	0	131	1,565
Other Oils > 400 Deg. Petro. Feedstock																	
Refinery	3	0	3	0	18	0	0	18	157	904	295	0	0	1,356	3	392	1,772
Total	3	0	3	0	18	0	0	18	157	904	295	0	0	1,356	3	392	1,772

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, January 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Special Naphthas																	
Refinery	105	58	163	0	216	0	139	355	18	1,220	48	163	0	1,449	6	178	2,151
Bulk Terminal	--	--	590	--	--	--	--	145	--	--	--	--	--	100	0	28	863
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	57	0	0	0	0	57	0	0	57
Total	--	--	753	--	--	--	--	500	--	--	--	--	--	1,606	6	206	3,071
Lubricants																	
Refinery	1,171	1,020	2,191	0	754	0	271	1,025	28	3,090	1,217	530	0	4,865	87	507	8,675
Bulk Terminal	--	--	1,268	--	--	--	--	1,162	--	--	--	--	--	276	142	823	3,671
Total	--	--	3,459	--	--	--	--	2,187	--	--	--	--	--	5,141	229	1,330	12,346
Waxes																	
Refinery	20	122	142	0	20	0	37	57	16	211	130	71	0	428	0	58	685
Total	--	--	142	--	--	--	--	57	--	--	--	--	--	428	0	58	685
Petroleum Coke																	
Refinery	807	0	807	0	403	500	139	1,042	0	382	972	185	0	1,539	131	2,116	5,635
Total	807	0	807	0	403	500	139	1,042	0	382	972	185	0	1,539	131	2,116	5,635
Asphalt and Road Oil																	
Refinery	1,420	29	1,449	361	3,235	1,821	805	6,222	840	353	1,055	828	272	3,348	1,563	1,546	14,128
Bulk Terminal	--	--	2,796	--	--	--	--	3,438	--	--	--	--	--	479	47	174	6,934
Total	--	--	4,245	--	--	--	--	9,660	--	--	--	--	--	3,827	1,610	1,720	21,062
Miscellaneous Products																	
Refinery	152	28	180	1	135	11	22	169	63	466	294	44	0	867	5	123	1,344
Bulk Terminal	--	--	155	--	--	--	--	24	--	--	--	--	--	38	0	80	297
Pipeline	--	--	0	--	--	--	--	57	--	--	--	--	--	276	0	13	346
Natural Gas Processing Plant	0	0	0	0	2	0	0	2	9	1	0	2	0	12	2	0	16
Total	--	--	335	--	--	--	--	252	--	--	--	--	--	1,193	7	216	2,003
Total Stocks, All Oils	--	--	178,832	--	--	--	--	251,314	--	--	--	--	--	791,954	32,563	175,384	1,430,047

---

[1] Includes 33,879 thousand barrels of domestic crude oil.

Source: See Explanatory Notes on Data Collection and Estimation.

-- Not Applicable.

Table 21. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, January
(Thousand Barrels)

Commodity	From I to			From II to				From III to				From IV to			From V to			
	II	III	V	I	III	IV	V	I	II	IV	V	II	III	V	I	II	III	IV
Crude Oil (Tanker and Barge only)	0	0	0	0	0	0	0	386	1,807	0	0	0	0	0	3,475	1,251	17,172	0
Petroleum Products	8,034	208	0	3,037	5,545	2,354	102	83,153	23,863	0	1,896	1,504	604	986	242	0	66	0
Pentanes Plus	0	0	0	0	249	0	0	0	511	0	0	88	87	0	0	0	0	0
Liquefied Petroleum Gases	0	0	0	962	2,908	318	0	3,233	7,794	0	0	706	517	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	102	288	99	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	315	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	5,600	134	0	1,313	1,589	1,208	0	43,239	9,291	0	1,130	403	0	705	0	0	0	0
Finished Leaded Motor Gasoline	2,944	0	0	473	835	597	0	17,087	4,706	0	598	255	0	440	0	0	0	0
Finished Unleaded Motor Gasoline	2,656	134	0	840	754	611	0	26,152	4,585	0	532	148	0	265	0	0	0	0
Finished Aviation Gasoline	0	0	0	10	0	0	0	70	88	0	0	94	0	0	0	0	0	0
Naphtha-Type Jet Fuel	21	0	0	0	96	0	0	541	0	0	299	3	0	74	0	0	0	0
Kerosene-Type Jet Fuel	432	0	0	135	54	682	0	9,227	2,863	0	138	0	0	32	0	0	0	0
Kerosene	107	0	0	0	0	0	0	1,073	25	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	1,801	0	0	364	618	146	0	22,903	2,762	0	319	210	0	175	242	0	0	0
Residual Fuel Oil	1	0	0	144	0	0	0	996	63	0	0	0	0	0	0	0	0	0
Naphtha and Other Oils for Petro. Feedstock	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	196	88	0	0	0	0	0	0	0	0	0
Lubricants	0	66	0	28	11	0	0	508	179	0	10	0	0	0	0	0	66	0
Waxes	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	0	37	84	0	0	0	0	0	0	0	0	0
Miscellaneous Products	72	8	0	81	20	0	0	512	16	0	0	0	0	0	0	0	0	0
Total All Products	8,034	208	0	3,037	5,545	2,354	102	83,539	25,670	0	1,896	1,504	604	986	3,717	1,251	17,238	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 22. Movements of Petroleum Products by Pipeline between PAD Districts, January 1984 (Thousand Barrels)

Commodity	From I to		From II to			From III to				From IV to			From V to	
	II	III	I	III	IV	I	II	IV	V	II	III	V	III	IV
Pentanes Plus	0	0	0	249	0	0	511	0	0	88	87	0	0	0
Liquefied Petroleum Gases	0	0	962	2,908	318	2,910	7,794	0	0	706	517	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	3,486	0	1,035	1,565	1,208	33,671	8,811	0	1,130	403	0	705	0	0
Finished Leaded Motor Gasoline	1,784	0	351	811	597	13,713	4,521	0	598	255	0	440	0	0
Finished Unleaded Motor Gasoline	1,702	0	684	754	611	19,958	4,290	0	532	148	0	265	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	68	0	0	94	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	96	0	358	0	0	299	3	0	74	0	0
Kerosene-Type Jet Fuel	289	0	111	54	682	6,970	2,416	0	138	0	0	32	0	0
Kerosene	92	0	0	0	0	872	25	0	0	0	0	0	0	0
Distillate Fuel Oil	1,333	0	302	610	146	18,265	2,422	0	294	210	0	175	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	30	0	0	0	0	0	0	0	0	0	0	0
Total	5,200	0	2,440	5,482	2,354	63,046	22,047	0	1,861	1,504	604	986	0	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 23. Movements of Crude Oil and Petroleum Products by Tanker and Barge between PAD Districts, January 1984 (Thousand Barrels)

Commodity	From I to			From II to			From III to						From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Crude Oil	0	0	0	0	0	0	386	0	386	0	1,807	0	3,475	1,251	17,172
Petroleum Products	2,834	208	0	597	63	102	20,107	657	4,316	15,134	1,816	35	242	0	66
Liquefied Petroleum Gases	0	0	0	0	0	0	323	0	0	323	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	102	288	0	288	0	99	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	315	0	0	315	0	0	0	0	0
Finished Motor Gasoline	2,114	134	0	278	24	0	9,568	101	537	8,930	480	0	0	0	0
Finished Leaded Motor Gasoline	1,160	0	0	122	24	0	3,374	0	0	3,374	185	0	0	0	0
Finished Unleaded Motor Gasoline	954	134	0	156	0	0	6,194	101	537	5,556	295	0	0	0	0
Finished Aviation Gasoline	0	0	0	10	0	0	70	0	8	62	20	0	0	0	0
Naphtha-Type Jet Fuel	21	0	0	0	0	0	183	0	0	183	0	0	0	0	0
Kerosene-Type Jet Fuel	143	0	0	24	0	0	2,257	0	460	1,797	447	0	0	0	0
Kerosene	15	0	0	0	0	0	201	0	73	128	0	0	0	0	0
Distillate Fuel Oil	468	0	0	62	8	0	4,638	497	1,778	2,363	340	25	242	0	0
Residual Fuel Oil	1	0	0	144	0	0	996	59	186	751	63	0	0	0	0
Naphtha and Other Oils for Petro. Feed. Use	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	196	0	168	28	88	0	0	0	0
Lubricants	0	66	0	28	11	0	508	0	412	96	179	10	0	0	66
Waxes	0	0	0	0	0	0	6	0	6	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	37	0	4	33	84	0	0	0	0
Miscellaneous Products	72	8	0	51	20	0	512	0	396	116	16	0	0	0	0
Total	2,834	208	0	597	63	102	20,493	657	4,702	15,134	3,623	35	3,717	1,251	17,238

Source: See Explanatory Notes on Data Collection and Estimation.

Table 24. Net Movements of Crude Oil and Petroleum Products by
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			PAD District V		
	Receipts into PADD I	Ship-ments from PADD I	Net Receipts PADD I	Receipts into PADD II	Ship-ments from PADD II	Net Receipts PADD II	Receipts into PADD III	Ship-ments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Ship-ments from PADD VI	Net Receipts PADD IV	Receipts into PADD V	Ship-ments from PADD V	Net Receipts PADD V
Crude Oil (Tanker and Barge only)	3,861	0	3,861	3,058	0	3,058	17,172	2,193	14,979	0	0	0	0	21,898	-21,898
Petroleum Products	86,432	8,242	78,190	33,401	11,038	22,363	6,423	108,912	-102,489	2,354	3,094	-740	2,984	308	2,676
Pentanes Plus	0	0	0	599	249	350	336	511	-175	0	175	-175	0	0	0
Liquefied Petroleum Gases	4,195	0	4,195	8,500	4,188	4,312	3,425	11,027	-7,602	318	1,223	-905	0	0	0
Unfinished Oils	288	0	288	99	102	-3	0	387	-387	0	0	0	102	0	102
Motor Gasoline Blending Components	315	0	315	0	0	0	0	315	-315	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	44,552	5,734	38,818	15,294	4,110	11,184	1,723	53,660	-51,937	1,208	1,108	100	1,835	0	1,835
Finished Leaded Motor Gasoline	17,560	2,944	14,616	7,905	1,905	6,000	835	22,391	-21,556	597	695	-98	1,038	0	1,038
Finished Unleaded Motor Gasoline	26,992	2,790	24,202	7,389	2,205	5,184	888	31,269	-30,381	611	413	198	797	0	797
Finished Aviation Gasoline	80	0	80	182	10	172	0	158	-158	0	94	-94	0	0	0
Naphtha-Type Jet Fuel	541	21	520	24	96	-72	96	840	-744	0	77	-77	373	0	373
Kerosene-Type Jet Fuel	9,362	432	8,930	3,295	871	2,424	54	12,228	-12,174	682	32	650	170	0	170
Kerosene	1,073	107	966	132	0	132	0	1,098	-1,098	0	0	0	0	0	0
Distillate Fuel Oil	23,509	1,801	21,708	4,773	1,128	3,645	618	25,984	-25,366	146	385	-239	494	242	252
Residual Fuel Oil	1,140	1	1,139	64	144	-80	0	1,059	-1,059	0	0	0	0	0	0
Naphtha and Other Oils for Petro. Feedstock Use	9	0	9	0	0	0	0	9	-9	0	0	0	0	0	0
Special Naphthas	196	0	196	88	0	88	0	284	-284	0	0	0	0	0	0
Lubricants	536	66	470	179	39	140	143	697	-554	0	0	0	10	66	-56
Waxes	6	0	6	0	0	0	0	6	-6	0	0	0	0	0	0
Asphalt and Road Oil	37	0	37	84	0	84	0	121	-121	0	0	0	0	0	0
Miscellaneous Products	593	80	513	88	101	-13	28	528	-500	0	0	0	0	0	0
Total All Products	90,293	8,242	82,051	36,459	11,038	25,421	23,595	111,105	-87,510	2,354	3,094	-740	2,984	22,206	-19,222

Source: See Explanatory Notes on Data Collection and Estimation.

Table 25. Production of Residual Fuel Oil by Sulfur Content, January 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Residual Fuel Oil	4,422	184	4,606	67	1,947	-297	450	2,167	660	7,570	3,240	275	75	11,820	305	10,634	29,532
0.00 to 0.30% Sulfur	646	57	703	0	131	0	87	218	5	388	262	64	8	727	69	440	2,157
0.31 to 1.00% Sulfur	2,709	0	2,709	0	598	0	109	707	428	1,913	847	129	0	3,317	105	3,859	10,697
Greater Than 1.00% Sulfur	1,067	127	1,194	67	1,218	-297	254	1,242	227	5,269	2,131	82	67	7,776	131	6,335	16,678

Source: See Explanatory Notes on Data Collection and Estimation.

Table 26. Stocks of Residual Fuel Oil by Sulfur Content, January 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Residual Fuel Oil -- 0.00 to 0.30% Sulfur																	
Refinery	363	40	403	0	163	0	35	198	36	181	126	6	2	351	101	322	1,375
Bulk Terminal	--	--	5,558	--	--	--	--	11	--	--	--	--	--	58	0	20	5,647
Total	--	--	5,961	--	--	--	--	209	--	--	--	--	--	409	101	342	7,022
Residual Fuel Oil -- 0.31 to 1.00% Sulfur																	
Refinery	1,226	6	1,232	6	614	0	40	660	104	1,393	787	123	0	2,407	83	1,997	6,379
Bulk Terminal	--	--	5,701	--	--	--	--	513	--	--	--	--	--	2,439	0	590	9,243
Total	--	--	6,933	--	--	--	--	1,173	--	--	--	--	--	4,846	83	2,587	15,622
Residual Fuel Oil -- Greater than 1.00% Sulfur																	
Refinery	592	51	643	6	874	220	89	1,189	204	3,353	1,120	51	44	4,772	228	4,446	11,278
Bulk Terminal	--	--	7,433	--	--	--	--	1,053	--	--	--	--	--	1,732	0	1,151	11,369
Total	--	--	8,076	--	--	--	--	2,242	--	--	--	--	--	6,504	228	5,597	22,647

Source: See Explanatory Notes on Data Collection and Estimation.
-- Not Applicable

Table 27. Movements of Residual Fuel Oil by Tanker and Barge between PAD Districts, By Sulfur Content, January 1984 (Thousand Barrels)

Commodity	From I to			From II to			From III to						From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Residual Fuel Oil	1	0	0	144	0	0	996	59	186	751	63	0	0	0	0
0.00 to 0.30% Sulfur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.31 to 1.00% Sulfur	1	0	0	0	0	0	643	59	186	398	63	0	0	0	0
Greater Than 1.00% Sulfur	0	0	0	144	0	0	353	0	0	353	0	0	0	0	0

Table 28. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, January 1984
(Thousand Barrels)

Country	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
Arab OPEC				
Algeria	3,463	136	0	3,598
Iraq	0	0	0	0
Kuwait	0	0	0	0
Libya	0	0	0	0
Qatar	0	0	0	0
Saudi Arabia	499	0	0	499
United Arab Emirates	336	0	0	336
Subtotal Arab OPEC	4,299	136	0	4,434
Other OPEC				
Ecuador	183	0	117	301
Gabon	0	0	0	0
Indonesia	(s)	117	104	222
Iran	0	0	0	0
Nigeria	0	0	0	0
Venezuela	3,308	347	2,962	6,617
Subtotal Other OPEC	3,492	464	3,184	7,140
Other				
Angola	0	0	0	0
Australia	254	64	3	321
Bahamas	491	0	0	491
Bolivia	0	0	0	0
Brazil	343	5	0	349
Brunei	0	0	0	0
Canada	152	353	279	784
Congo	177	0	0	177
Egypt	0	0	0	0
France	0	0	0	0
Ghana	0	119	0	119
Liberia	231	0	737	968
Malaysia	0	0	0	0
Mexico	361	0	12	373
Netherlands	0	0	0	0
Netherlands Antilles	1,228	270	4,801	6,299
Norway	0	0	0	0
Oman	382	0	0	382
People's Republic of China	0	0	0	0
Peru	0	240	981	1,221
Puerto Rico	0	0	0	0
Romania	0	0	0	0
Spain	364	0	0	364
Syria	0	0	0	0
Trinidad	0	0	244	244
Tunisia	0	0	0	0
United Kingdom	0	0	128	128
Virgin Islands	2,885	1,734	1,343	5,962
Yugoslavia	0	0	0	0
Zaire	0	0	0	0
Other Western Hemisphere	449	530	0	979
Other Eastern Hemisphere	1,135	977	36	2,149
Subtotal Other	8,452	4,292	8,565	21,309
Total Imports	16,242	4,892	11,748	32,883

(s) = Less than 500 barrels.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Table 29. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, January 1984 (Thousand Barrels)

State	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
PAD District I	**13,814**	**4,450**	**11,515**	**29,779**
Connecticut	0	194	0	194
Delaware	183	122	179	484
Florida	80	362	1,033	1,476
Georgia	0	0	272	272
Maine	0	0	701	701
Maryland	351	299	283	933
Massachusetts	589	788	2,591	3,968
New Jersey	2,188	269	1,588	4,045
New York	9,771	1,299	3,074	14,145
North Carolina	83	0	132	215
Pennsylvania	535	964	283	1,782
Rhode Island	0	153	134	287
South Carolina	0	0	138	138
Vermont	32	0	0	32
Virginia	0	0	1,106	1,106
PAD District II	**92**	**159**	**57**	**309**
Illinois	0	94	0	94
Michigan	90	65	42	197
Minnesota	0	0	10	10
North Dakota	2	0	5	8
PAD District III	**2,331**	**34**	**0**	**2,366**
Alabama	360	0	0	360
Louisiana	0	34	0	34
Texas	1,972	0	0	1,972
PAD District IV	**4**	**0**	**20**	**24**
Montana	4	0	20	24
PAD District V	**1**	**248**	**156**	**406**
California	1	0	12	14
Hawaii	(s)	248	144	392
All PAD Districts	**16,242**	**4,892**	**11,748**	**32,883**

(s) = Less than 500 barrels.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 30. Stocks of Natural Gas Liquids by PAD District, December 1983 (New Basis) (Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Pentanes Plus																	
Refinery	17	0	17	0	57	100	125	282	46	205	160	75	15	501	12	14	826
Bulk Terminal	—	—	17	—	—	—	—	1,789	—	—	—	—	—	2,783	2	22	4,613
Pipeline	—	—	0	—	—	—	—	302	—	—	—	—	—	1,228	79	5	1,614
Natural Gas Processing Plant	4	14	18	0	42	18	432	492	393	424	227	30	23	1,097	91	14	1,712
Total	—	—	52	—	—	—	—	2,865	—	—	—	—	—	5,609	184	55	8,765
Liquefied Petroleum Gases																	
Refinery	705	19	724	241	1,999	168	631	3,039	226	420	2,063	28	29	2,766	263	602	7,394
Bulk Terminal	—	—	1,777	—	—	—	—	21,296	—	—	—	—	—	53,965	90	1,947	79,075
Pipeline	—	—	1,928	—	—	—	—	6,630	—	—	—	—	—	5,681	432	0	14,671
Natural Gas Processing Plant	160	35	195	0	162	40	807	1,009	976	3,390	587	41	202	5,196	126	91	6,617
Total	—	—	4,624	—	—	—	—	31,974	—	—	—	—	—	67,608	911	2,640	107,757
Ethane																	
Refinery	1	0	1	0	7	16	0	23	0	5	0	0	0	5	0	0	29
Bulk Terminal	—	—	0	—	—	—	—	3,588	—	—	—	—	—	12,788	0	0	16,376
Pipeline	—	—	0	—	—	—	—	1,505	—	—	—	—	—	1,871	140	0	3,516
Natural Gas Processing Plant	0	0	0	0	26	0	201	227	74	1,119	13	0	23	1,229	2	0	1,458
Total	—	—	1	—	—	—	—	5,343	—	—	—	—	—	15,893	142	0	21,379
Propane for Petrochemical Feedstock Use																	
Refinery	48	0	48	0	89	0	0	89	3	5	83	0	0	91	0	0	228
Total	—	—	48	—	—	—	—	89	—	—	—	—	—	91	0	0	228
Propane For Other Uses																	
Refinery	608	3	611	2	1,127	30	132	1,291	48	67	1,033	5	5	1,158	110	213	3,383
Bulk Terminal	—	—	1,510	—	—	—	—	14,397	—	—	—	—	—	24,761	90	611	41,369
Pipeline	—	—	1,794	—	—	—	—	3,403	—	—	—	—	—	2,351	180	0	7,728
Natural Gas Processing Plant	149	32	181	0	81	22	418	521	511	667	402	17	124	1,721	76	73	2,572
Total	—	—	4,096	—	—	—	—	19,612	—	—	—	—	—	29,991	456	897	55,052
Normal Butane For Petro. Feed Use																	
Refinery	0	0	0	0	0	25	0	25	0	68	0	1	0	69	5	2	101
Total	—	—	0	—	—	—	—	25	—	—	—	—	—	69	5	2	101
Normal Butane For Other Uses																	
Refinery	47	16	63	217	588	60	315	1,180	106	161	316	10	18	611	97	344	2,295
Bulk Terminal	—	—	175	—	—	—	—	2,114	—	—	—	—	—	10,322	0	1,080	13,691
Pipeline	—	—	134	—	—	—	—	1,155	—	—	—	—	—	1,060	64	0	2,413
Natural Gas Processing Plant	9	2	11	0	30	14	134	178	313	1,161	105	17	45	1,641	46	13	1,889
Total	—	—	383	—	—	—	—	4,627	—	—	—	—	—	13,634	207	1,437	20,288
Isobutane																	
Refinery	1	0	1	22	188	37	184	431	69	114	631	12	6	832	51	43	1,358
Bulk Terminal	—	—	92	—	—	—	—	1,197	—	—	—	—	—	6,094	0	256	7,639
Pipeline	—	—	0	—	—	—	—	567	—	—	—	—	—	399	48	0	1,014
Natural Gas Processing Plant	2	1	3	0	25	4	54	83	78	443	67	7	10	605	2	5	698
Total	—	—	96	—	—	—	—	2,278	—	—	—	—	—	7,930	101	304	10,709

Source: See Explanatory Notes on Data Collection and Estimation.
-- Not Applicable.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Glossary

LIBRARY U. OF I. URBANA-CHAMPAIGN

Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; CH-(CH)n-OH. Alcohol includes methanol and ethanol.

Alkylation. A refinery process for chemically combining isoparaffin with olefin hydrocarbons. The product, alkylate, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Deg API} = \frac{141.5}{\text{sp gr 60F/60F}} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene.

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor for asphalt is 5.5 barrels of 42 U.S. gallons per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation gasoline.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt and wax to barrels are given in the definitions for these products.

Barrels Per Calendar Day. See ***Operable Capacity***.

Barrels Per Stream Day. See ***Operable Capacity***.

Bi-Metallic. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of two metals (e.g. platinum, rhenium).

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon. ($\mathrm{C4H10}$). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is covered by ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

> ***Isobutane.*** A normally gaseous branch-chain hydrocarbon, ($\mathrm{C4H10}$). It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. It is extracted from natural gas or refinery gas streams.
>
> ***Normal Butane.*** A normally gaseous straight-chain hydrocarbon, ($\mathrm{C4H10}$). It is a colorless paraffinic gas that boils at a temperature of 31.1 degrees F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, ($\mathrm{C4H8}$), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil.

Catalytic Hydrocracking. A refining process for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. Hydrocracking is an efficient, relatively low temperature process using hydrogen and a catalyst.

Catalytic Hydrotreating. A process for treating petroleum fractions (e.g. distillate fuel oil and residual oil) and unfinished oils (e.g. naphthas, reformer feeds and heavy gas oils) in the presence of catalysts and substantial quantities of hydrogen to upgrade their quality.

Catalytic Reforming. The use of controlled heat and pressure with catalysts to effect the rearrangement of certain hydrocarbon molecules without altering their composition appreciably; the conversion of low-octane gasoline fractions into higher octane stocks suitable for blending into finished gasoline; also the conversion of naphthas to obtain a more volatile product of higher octane number.

Conventional. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of a metal and a non-metal (e.g. platinum, alumina).

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratifed carbonaceous rocks are either solid or brittle and are highly combustible. In-

LIBRARY U. OF I. URBANA-CHAMPAIGN

cludes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Distillation. The refining process of separating crude oil components by heating and subsequent condensing of the fractions by cooling.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite and oil shale. Drip gases are also included, but topped crude oil (residual) oil and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign according to the following:

> ***Domestic.*** Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 U.S.C. 1331.
>
> ***Foreign.*** Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Delayed Coking. A process to produce low Conradson carbon gas for catalytic cracking feedstock and for gasoline.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

> ***No. 1 Fuel Oil.*** A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 degrees F. at the 10-percent point and 550 degrees F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.
>
> ***No. 2 Fuel Oil.*** A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 specifies for this grade distillation temperatures at the 90-percent point between 540 degrees and 640 degrees F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.
>
> ***No. 1 and No. 2 Diesel Fuel Oils.*** Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D975:
>
> > ***No. 1-D.*** A volatile distillate fuel oil with a boiling range between 300-575 degrees F. and used in high-speed diesel engines generally operated under variations in speed and load. Includes type C–B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.
> >
> > ***No. 2-D.*** A gas oil type distillate of lower volatilit with distillation temperatures at the 90-percen point between 540-640 degrees F. for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R–R diesel fuel used for railroad locomotive engines, and Type T–T for diesel-engine trucks. Properties are defined in ASTM Specification D975.
>
> ***No. 4 Fuel Oil.*** A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV–F–815C; its kinematic viscosity is between 5.8 and 26.4 centistokes at 100 degrees F. Also included is No. 4–D, a fuel oil for low- and medium-speed diesel engines that conforms to ASTM Specification D975.

Eastern Hemisphere. That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electric Energy (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous straight-chain hydrocarbon, (C_2H_6). It is a colorless paraffinic gas that boils at a temperature of −127.48 degrees F. It is extracted from natural gas and refinery gas streams.

Ethylene. An olefinic hydrocarbon, (C_2H_4), recovered from refinery processes or petrochemical processes.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Fluid Coking. A thermal process utilizing the fluidized-solids technique for continuous conversion of heavy, low-grade oils into lighter products.

Gasohol. See ***Motor Gasoline (Finished).***

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. Derives its name from having originally been used in the manufacture of illuminating gas. Now supplies distillate-type fuel oils and diesel fuel, also cracked to produce gasoline.

Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation or motor gasoline.

Idle Capacity. The component of operable capacity that is not in operation and not under active repairs, but capable of being placed in operation within 30 days; and capacity not in operation but under active repairs that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported

crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Isobutane. See ***Butane.***

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule. Used to convert normal butane into isobutane, an alyklation process feedstock, and normal pentane and hexane into isopentane and isohexane, high-octane gasoline components.

Kerosene. A petroleum distillate that boils at a temperature between 300-550 degrees F., that has a flash point higher than 100 degrees F. by ASTM Method D56, that has a gravity range from 40-46 degrees API, and that has a burning point in the range of 150-175 degrees F. Included are the two classifications recognized by ASTM D3699: No. 1-K and No. 2-K, and all grades of keresene called range or stove oil which have properties similar to No. 1 fuel oil, but with a gravity of about 43 degrees API and a maximum end-point of 625 degrees F. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with an average gravity of 40.7 degrees API, and a 10 percent distillation temperature of 400 degrees F. It is covered by ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type; it is used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and nonassociated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Liquefied Petroleum Gases (LPG). Ethane, Ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/ or refrigeration they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane. Excludes still gas used for chemical or rubber manufacture which is reported as a petrochemical feedstock and also excludes liquefied petroleum gases intended for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstock or other uses.

Lubricating Oils. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include:

Bright Stock. A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.

Neutral. A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100 degrees F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.

Other. A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere, e.g., petrolatum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, speciality oils and medicinal oils.

Motor Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Specifications for motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, include a boiling range of 122-158 degrees F. at the 10-percent point to 365-374 degrees F. at the 90-percent point and a Reid vapor pressure range from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blend stock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol) in which 10 percent or more of the product is alcohol.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range with an average gravity of 52.8 degrees API and 20 to 90 percent distillation temperatures of 290 degrees to 470 degrees F, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specification of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: Ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e. products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C_5H_{12}), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Normal Butane. See ***Butane.***

OPEC. The acronym for the Organization of Petroleum Exporting Countries, oil-producing and exporting countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation, and not under active repairs but capable of being placed in operation within 30 days; or not in operation but under active repairs that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed in an atmospheric distillation facility during a twenty-four hour period after making allowances for the following limitations:

The capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation.

The types and grades of inputs to be processed.

The types and grades of products expected to be manufactured.

The environmental constraints associated with refinery operations.

The reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs and turnaround.

The reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude and product slate conditions.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as raw materials. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline and plant condensate.

Petrochemical Feedstock Use. Chemical feedstocks derived from petroleum, principally for the manufacture of chemicals, synthetic rubber and a variety of plastics. The categories reported are "Naphtha-Less than 400 degrees F. end-point" and "Other oils over 400 degrees F. end point."

Naphtha-Less Than 400 Degrees F. End-Point. A naphtha with an end point of less than 400 degrees F. that is intended for use as a petrochemical feedstock.

Other Oils-Over 400 Degrees F. End-Point. Oils with an end point over 400 degrees F. that is intended for use as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels of 42 U.S. gallons per short ton.

Marketable Coke. Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (i.e., catalytic cracking) carbon is deposited on the catalyst thus, deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refinery process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained rom the processing of crude oil (including lease condensate), natural gas and other hydrocarbon compounds. Petroleum products include unfinished oils, iquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual uel oil, naphtha less than 400 F. end-point, other oils-over 400 F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Petroleum Refinery. An installation that manufacturers finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks excludes stocks of foreign origin that are held in bonded warehouse storage.

Propane. A normally gaseous straight-chain hydrocarbon, (C3H8). It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees F. It is extracted from natural gas or refinery gas streams. It includes all products covered by Gas Processors Association Specifications for commercial propane and HD-5 propane and ASTM Specification D1835.

Propylene. An olefinic hydrocarbon, (C3H6), recovered from refinery processes or petrochemical processes.

Residual Fuel Oil. The topped crude of refinery operations which includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D396 and Federal Specification VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2 (NATO Symbol F-77), and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust pallative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Special Naphthas. All finished products within the gasoline range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point and have a boiling range of 90 degrees to 220 degrees F. "Special naphthas" includes all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and/or refinery fuel use.

Petrochemical Feedstock Use. Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc. are considered petrochemical products; therefore, only their feedstock equivalents are included.

Fuel Use. All other still gas.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking is used to increase the yield of gasoline obtainable from crude oil.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid-being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal cracking process in which heavy vacuum-still bottoms produced on the primary distillation unit are cracked to increase production of distillate products.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series pre-

LIBRARY U. OF I. URBANA-CHAMPAIGN

dominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42-U.S. gallon barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics:

Penetration at 77 degrees F. (D1321)-60 maximum. Viscosity at 210 degrees F. in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics:

Viscosity at 210 degrees F. (D88)-59.9 SUS (10.18 centistokes) maximum. Oil Content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics:

Viscosity at 210 degrees F. (D88)-59.9 SUS (10.18 centistokes) maximum. Oil Content (D721)-0.51 percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that includes North and South America and adjacent islands.

Bureau of Mines Petroleum Refining Districts and PAD Districts

The following are the Bureau of Mines petroleum refining districts which make up the PAD districts:

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian #1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

PAD District II

Appalachian #2: The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

Indiana—Illinois—Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

Minnesota—Wisconsin—North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma—Kansas—Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana—Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

PAD District IV

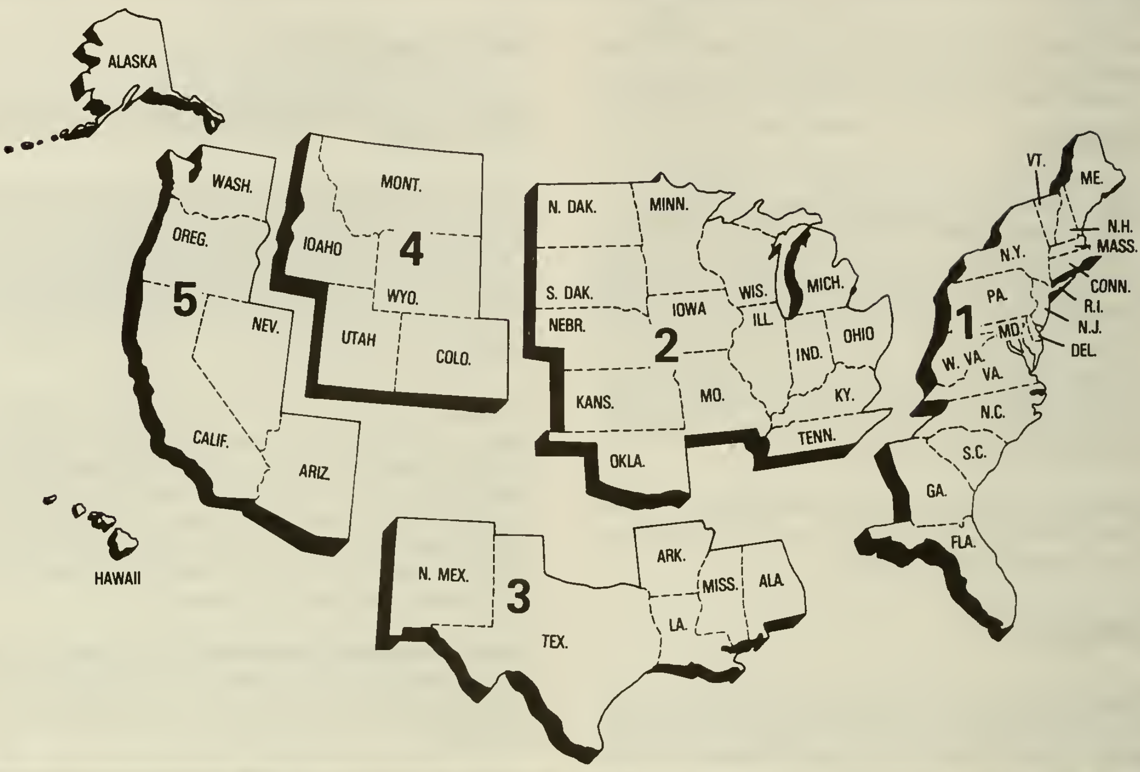
Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

PAD District V

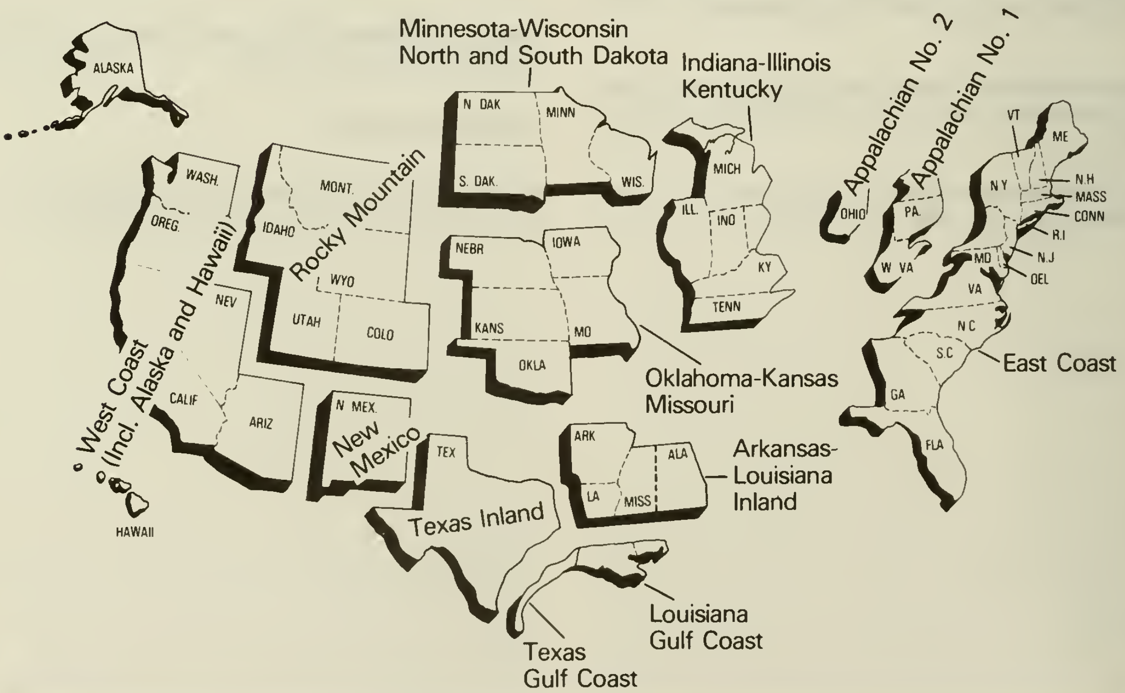
West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

LIBRARY U. OF I. URBANA-CHAMPAIGN

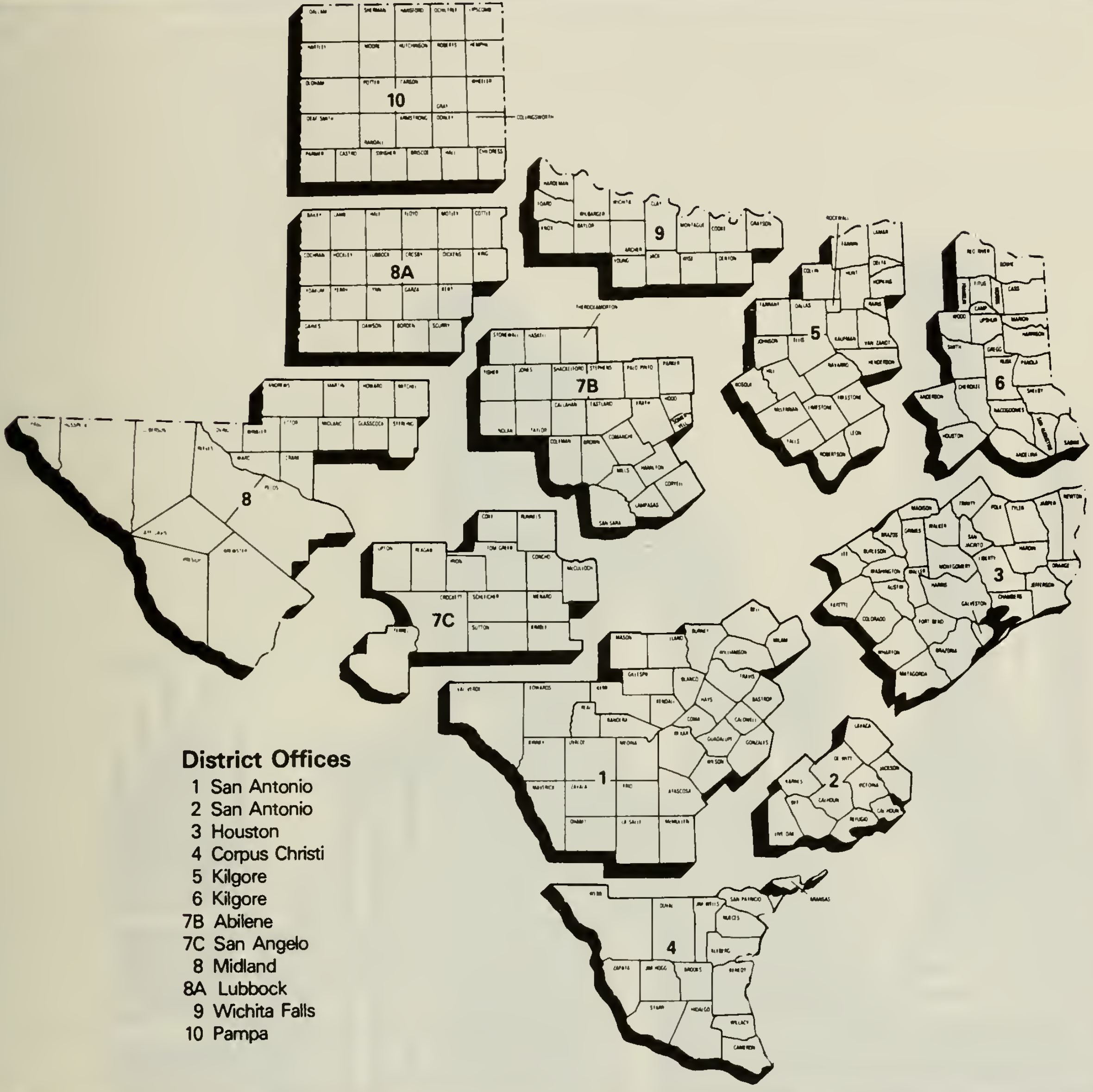
Petroleum Administration for Defense (PAD) Districts



Bureau of Mines Refining Districts



District Map Oil and Gas Division Railroad Commission of Texas



District Offices

1	San Antonio
2	San Antonio
3	Houston
4	Corpus Christi
5	Kilgore
6	Kilgore
7B	Abilene
7C	San Angelo
8	Midland
8A	Lubbock
9	Wichita Falls
10	Pampa

[illegible]

Explanatory Notes

LIBRARY U. OF I. URBANA-CHAMPAIGN

Explanatory Notes

Note 1: Data Collection Methodology

ckground

ginning in January 1983, the Energy Information Ad-
nistration (EIA) unified its petroleum supply data col-
ction activities into the Petroleum Supply Reporting
stem (PSRS). The PSRS represents a family of data
llection survey forms, data processing systems and
blication systems that have been consolidated to
hieve comparability and consistency throughout.
e primary focus of the consolidation has been to re-
se the weekly and monthly survey reporting forms to
sure consistency in form layout, preparation instruc-
ons, and definitions. As a result, a new set of survey
rms were implemented in January 1983. The follow-
g are the new form numbers and their corresponding
edecessor forms:

New Form Number	Name	Old Form Number
EIA-800	Weekly Refinery Report	EIA-161
EIA-801	Weekly Bulk Terminal Report	EIA-162
EIA-802	Weekly Product Pipeline Report	EIA-163
EIA-803	Weekly Crude Oil Stocks Report	EIA-164
EIA-804	Weekly Imports Report	EIA-165
EIA-805	Weekly Shipments from Puerto Rico to the United States Report	—
EIA-810	Monthly Refinery Report	EIA-87
EIA-811	Monthly Bulk Terminal Report	EIA-88
EIA-812	Monthly Product Pipeline Report	EIA-89
EIA-813	Monthly Crude Oil Report	EIA-90
ERA-60	Monthly Imports Report	ERA-60
EIA-815	Monthly Shipments from Puerto Rico to the United States Report	FEA-P133-M-0
EIA-816	Monthly Natural Gas Liquids Report	EIA-64
EIA-817	Monthly Tanker and Barge Movement Report	EIA-170

Forms EIA-800 through 805 comprise the Weekly Petroleum Supply Reporting System (WPSRS). This system is designed to collect basic refinery operations and product stock data for major products on a weekly basis. Data from the WPSRS are published in the *Weekly Petroleum Status Report (WPSR)* and are also used to calculate the preliminary statistics in the "Summary Statistics" section of the *Petroleum Supply Monthly (PSM)*. A description of the WPSRS survey forms follows in Note 1.1.

Forms EIA-810-813, 815-817 and ERA-60 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery operations data, refinery, bulk terminal and pipeline stocks data, crude oil and petroleum product imports data and movements of petroleum products and crude oil between PAD Districts data. These surveys are the primary source of data for the "Summary Statistics" and "Detailed Statistics" sections of the *PSM*. A description of MPSRS survey forms follows in Note 1.2.

Data are also obtained in magnetic tape form from the Bureau of the Census on a monthly basis. These tapes contain aggregated import and export statistics that are used in the preparation of the *PSM*. A description of the Census data follows in Note 1.3.

Note 1.1: Weekly Petroleum Supply Reporting System (WPSRS)

Background

The EIA first began publishing weekly petroleum supply statistics in April 1979 in response to the Iranian oil crisis. Initially, the published data were taken from the American Petroleum Institute (API) *Weekly Statistical Bulletin*. However, in January 1980 the EIA began to publish weekly statistics from its own surveys, with the exception of imports statistics which the EIA did not begin collecting until June 1980.

The weekly surveys collect data comparable to those collected on a monthly basis. Selected petroleum companies report weekly data to the EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports each shipment entering the United States. On Form EIA-805, a company shipping unfinished oils and finished petroleum products into the United States from Puerto Rico reports each shipment. Current weekly data and the most recent monthly data are used to estimate the totals that are published in the *Weekly Petroleum Status Report.*

Sample Frame

The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Sampled companies report data only for facilities in the 50 States and District of Columbia.

The sample for each survey is taken from the following universe:

EIA-800: Based on the EIA-810 universe, which includes all petroleum refineries in the United States and

LIBRARY U. OF I. URBANA-CHAMPAIGN

its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and plants that produce finished motor gasoline through mechanical blending. The selected sample size is 215.

EIA-801: Based on the EIA-811 universe, which includes all bulk terminal facilities in the United States and its territories that have either a total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The selected sample size is 93.

EIA-802: Based on the EIA-812 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that transport only natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies that transport products covered in the weekly survey are included. The selected sample size is 65.

EIA-803: Based on the EIA-813 universe, which consists of all companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-804: Based on the ERA-60 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico. The selected sample size is 65.

EIA-805: Based on the EIA-815 universe, which includes all shippers of unfinished oils and petroleum products into the United States from Puerto Rico. Four companies report.

Sampling Method

The cut-off method is the sampling procedure used for all weekly surveys except the EIA-802, which uses the monthly universe in its entirety. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous 12-month period. Companies are chosen for the sampling, beginning with the largest and adding companies until the total sample covers 90 percent of the total for the previous time period for each product published in the *Weekly Petroleum Status Report*.

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. The report period closes each Friday at 7 a.m. All canvassed firms and terminal operations companies must file by 5 p.m. on the following Monday.

Estimation and Imputation

After company reports have been checked and entered into the weekly data base, weekly totals for given products are estimated by using the following formula.

The total reported by all companies for the most recent month (M_t) is divided by the amount reported by the sample of companies for the most recent month (M_s). The result is multiplied by the amount reported by the sample of companies for the current week (W_s). The answer, W_t, is an estimate of the amount that would have been reported by all companies for the current week if all companies reported each week.

$$W_t = \frac{M_t}{M_s}(W_s)$$

This procedure is used to estimate total weekly inputs to refineries and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of weekly imports is the sum of the smoothed ratio multiplied by the weekly values and estimates for shipments from Puerto Rico. Imports of other oils includes an adjustment from Census data for unlicensed products because of coverage differences between the monthly imports data and Census data.

Explicit imputation is done for companies which do not respond in a given week. The imputed values are exponentially smoothed means of recent reports from the specific company.

Response Rates

The response rate for the published estimates is usually between 95 and 98 percent.

Note 1.2: Monthly Petroleum Supply Reporting System (MPSRS)

Background

The MPSRS was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that have been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems

were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movements of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS is the first effort to make them all consistent and comparable.

Respondent Frame

EIA-810: All petroleum refineries and plants that produce finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, the Hawaiian Foreign Trade Zone, and Guam. Approximately 313 respondents report on the EIA-810.

EIA-811: All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have a total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline, regardless of ownership of the material. Approximately 328 respondents report on the EIA-811.

EIA-812: All products pipeline companies that carry petroleum products (including interstate, intrastate and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 94 respondents report on the EIA-812.

EIA-813: All companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-815: All licensed importers and importers of record shipping petroleum products from Puerto Rico into the 50 States and the District of Columbia.

Import data from the ERA-60 and EIA-815 are integrated into the import statistics reported in the *PSM*.

EIA-816: All operators of facilities designed to extract liquid hydrocarbons from natural gas stream (natural gas processing plants) or to separate a hydrocarbon stream into its component products, i.e., propane, butane, natural gasoline, etc. (fractionators). Approximately 990 respondents report on the EIA-816.

EIA-817: All known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are about 50 respondents.

ERA-60: All licensed importers and importers of record importing crude oil and petroleum products into the United States and Puerto Rico. The respondent universe consisted of approximately 1,100 firms as of July 31, 1982. However, only a selected 250 importers must report each month regardless of import activity. All others must report only for a month in which they actually had imports. The respondent universe for this survey is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

EIA utilizes a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review industry publications such as the *Oil and Gas Journal* and *LP Gas Almanac* for information on facilities or companies going into operation or closing down. These are augmented by articles in newspapers, letters from respondents indicating changes in status and information received from survey systems operated by other offices.

Periodically an extensive survey study is conducted to completely refresh the frames. This involves consolidating information from every known source including State agencies, federal agencies (e.g., EPA, Corps of Engineers, Census Bureau, etc.), and private industry directories. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Completed forms are required to be postmarked by the 20th day following the end of the report month, with the exception of the EIA-815 and ERA-60 which are due 15 work days following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline, for their data. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed only for nonresponding companies that submitted reports the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by submission of actual data. Data for nonrespondents on the EIA-815 and 817, and ERA-60 are not imputed.

Response Rates

As of the filing deadline, the response rates of the EIA-810 through EIA-813 respondents is over 90 per-

cent. The response rate for the EIA-816 is over 85 percent and for the EIA-817 it is 98 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Names of companies that fail to file for 2 consecutive months are forwarded for further noncompliance action.

In July 1983, the ERA-60 survey had a response rate of 99.9 percent by the filing deadline. The universe was 1,100 firms at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard follow-up of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. In addition, response is cross-checked with response on the Petroleum Licensing Decrementation System (PLDS), a listing of each month's importers. The response rate is generally 98 to 99 percent by the time the data are first published.

Note 1.3: Census Import (IM-145) and Export (EM-522 and EM-594) Data

Background

Each month the EIA purchases magnetic tapes of aggregated import and export statistics from the Bureau of the Census. These data provide the only source of export statistics and are used to augment the import data collected by the EIA. Export statistics and import data from the Census tapes on liquefied petroleum gases and bonded ship bunkers are published in the *PSM*.

Import Statistics (IM-145)

Coverage

The import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise in-transit through the United States, when documented with Customs as an in-transit movement.

2. Shipments from anywhere to U.S. possessions and shipments from U.S. possessions to the United States. (U.S. possessions include Puerto Rico, the Virgin Islands, Guam, and American Samoa.)

3. U.S. merchandise that was held in foreign countries by the U.S. Armed Forces and is returned to the United States for the use of the Armed Forces.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501, 7505, and 7506).

Imported petroleum is reported as *Imports for Consumption*. Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics (EM-522 and EM-594)

Coverage

The export statistics reflect both government and nongovernment exports of domestic and foreign merchandise from the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. All shipments from U.S. possessions, regardless of whether the shipments are sent to the United States, to other U.S. possessions, or to foreign countries.

2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.

3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Exporters are required to file Shipper's Export Declarations with Custom's officials. The only exceptions are those exporters who have been authorized to submit data directly to the Bureau of Census on magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations.

ountry and Area of Destination

he country of destination is defined as the country of ltimate destination or the country where the goods are o be consumed, further processed, or manufactured, s known to the shipper at the time of exportation. If ne shipper does not know the country of ultimate des-nation, the shipment is credited to the last country to hich the shipper knows that the merchandise will be hipped in the same form as it was when exported.

Note 2: Supply

he components of petroleum supply are field produc-ion, refinery production, imports, and stock withdrawal r addition:

ield Production is the sum of crude oil production (in-luding lease condensate), natural gas processing lant production, and new supply (field production) of ther liquids used by refineries.

rude oil production is estimated based on data re-eived from State conservation and revenue agencies. or further explanation, see Explanatory Note 3.

ield production of natural gas plant liquids (NGPL), in-luding finished petroleum products, is reported nonthly on survey Form EIA-816, *Monthly Natural Gas iquids Report*. Negative production will occur when he amount of a product produced during the month is ess than the amount of that same product that is re-rocessed (input) or reclassified to become another roduct during the same month. For survey description and other detail, see Explanatory Note 1.2.

Refinery Production of petroleum products is reported monthly on survey Form EIA-810, *Monthly Refinery Re-ort*. Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports of crude oil and petroleum products are reported monthly on Form ERA-60, *Report of Oil Imports into the United States and Puerto Rico*, and Form EIA-815, *Shipments of Refined Products (Including Unfinished Oils) from Puerto Rico to the United States*. In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501, 7505, and 7506. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum gases (LPG), where the Census data show a much higher level of imports than EIA data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and LPGs are not licensed products. Therefore, respondents that import only LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha- and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

Stock Withdrawal (+) or Addition (−) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the same month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (−) would represent a buildup of stocks and a reduction in the amount of petroleum supplies distributed for domestic consumption. For a description of survey forms used to make stock withdrawal or addition calculations see Explanatory Note 5.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition.

Crude oil supply is the sum of field production, imports and stock withdrawals or additions. Crude oil disposition is the sum of exports, refinery input, losses and product supplied. Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used.

Note 3: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the State conservation agencies, which collect crude oil production values for tax purposes. The U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of ten State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports

from the State conservation agencies and the U.S. Geological Survey. The ten States that do not report monthly values are Indiana, Kentucky, Missouri, Arkansas, Utah, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly COPS information becomes available. Table 11 of this publication provides information on crude oil production for the most recent month for which COPS values are available. In order to present more timely crude oil production values, the EIA's Dallas Field Office prepares a series of State level estimates which are based on historical production patterns and are summed to obtain the monthly crude oil production values shown in the summary statistics of this publication.

The individual State level estimates are either exponential curve fitted projections based on recent data or are constant level projections based on the average production rate during a recent time period. In some cases, adjustments are made to these estimates based on additional information on expected changes in production rates supplied by a State agency, a trade association, or an individual field operator.

Note 4: Disposition

The components of petroleum disposition are crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Crude Oil Losses is the sum of crude oil losses at refineries. Crude oil losses at refineries are reported on Form EIA-810, *Refinery Report.*

Refinery Inputs of crude oil, natural gas plant liquids, and other liquids are reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published inputs of unfinished oils and of motor and aviation gasoline blending components equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-810, by refineries located in these places.

Product Supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, minus crude oil losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) data were misreported or reported late, (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel oil. These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel oil were reported as either distillate or residual fuel oil and included in product supplied for these products.

Note 5: Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-810, *Monthly Refinery Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form EIA-800, *Weekly Refinery Report*, and on Form EIA-803, *Weekly Crude Oil Stocks Report*. Primary stocks of petroleum products are summed from data reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, Form EIA-810, *Monthly Refinery Report*, Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-812, *Monthly Product Pipeline Report*. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-800, *Weekly Refinery Report*, Form EIA-801, *Weekly Bulk Terminal Report*, and Form EIA-802, *Weekly Crude Oil Stocks Report*. For survey descriptions and other details, see Explanatory Notes 1.1 - 1.3.

Note 6: Average Stock Levels

The graphs displaying monthly stock levels of crude oil, motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases, and other products provide the user with recent data as well as a summary of data from January through December or from July through June for the most recent 3-year period. This summary takes the form of an *average range* that includes seasonal variation determined from a longer time period. The

rage range represents the historical pattern; it is not recast.

se curves are updated semiannually (On April 1 and tober 1), by basing the *average ranges* on a more re- nt time period. Each 3-year data series is adjusted by pping the first 6 months and including the most re- nt 6 months.

each data series, the monthly seasonal factors are imated by means of a seasonal adjustment tech- ue developed at the Bureau of the Census (Census 11). The seasonal factors are assumed to be stable ., unchanging from year to year) and additive. The se- s is deseasonalized by subtracting the seasonal fac- for the appropriate month from the reported stock els. The intent of deseasonalization is to remove y seasonal variation from the data. Thus, a desea- nalized series would contain the same trends and ir- gularities as the original data. For crude oil stocks, derived seasonal factors are very small relative to ide oil stock levels. Therefore, the seasonal factors distillate fuel oil, residual fuel oil, liquefied petro- im gases and other products are derived using nthly data from 1974-1980. For motor gasoline, the asonal factors are based on monthly data from 1975, 76, 1978, 1979 and 1980. In 1977, there was virtually seasonal behavior in motor gasoline stocks. Month- stock levels stayed at the same high level for the en- e year. In addition, the seasonal patterns in 1973, 74 and 1977 were not representative of the recent st, and these years were not used in the determina- n of seasonal patterns for motor gasoline stocks. Be- use of these differences in the year-to-year seasonal ictuation of motor gasoline, the evidence for the illus- ated seasonal patterns for crude oil, distillate fuel oil, sidual fuel oil, liquefied petroleum gases and other oducts is stronger than is the evidence for the illus- ated seasonal patterns for motor gasoline.

some cases, these seasonal patterns do not show a nooth transition from month to month. For example, e June factor for residual fuel oil is slightly less than e May and July values, making a bump in the curve. s there is little difference in the magnitude of these asonal factors, it is possible that this variation is due the small number of observations (7 years) and the ata variability.

fter seasonal factors are derived, the most recent 3- ear period (from January through December or from ily through June) is deseasonalized. The average of e deseasonalized 36-month series determines the idpoint of the deseasonalized average band. The stan- ard error of the deseasonalized 36 months is calcu- ted adjusting for extreme data points. The width of e *average range* is twice this standard error.

he upper curve of the *average range* is defined as the verage plus the seasonal factors plus the standard rror. The lower curve is defined as the average plus the easonal factors minus the standard error.

Note 7: Movements

Movements of crude oil between PAD Districts are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Petroleum product movements are reported on Forms EIA-817, *Monthly Tanker and Barge Movement Report*, and EIA-812, *Monthly Product Pipeline Report*. Net receipts is the difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge. For survey descriptions and other detail, see Explanatory Note 1.2.

Note 8: Preliminary Monthly Statistics

Weekly data (Forms EIA-800, 801, 802, 803, and 804) are used to estimate the most recent monthly values for the *Summary Statistics* section. Since some of the weekly reporting periods overlap two adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To estimate crude oil and petroleum product imports, crude oil input to refineries and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel oil, and residual fuel oil) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the two weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of the earlier of the two weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 3.

Note 9: Notes on Tables

Note 9.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (−), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.

LIBRARY U. OF I. URBANA-CHAMPAIGN

- Natural Gas Plant Production is the sum of Natural Gas Liquids and Finished Petroleum Products Field Production in Table 4.

- Petroleum Products Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.

- Total Crude Oil and Petroleum Products Ending Stocks appear in thousand barrels in Table 2.

Note 9.2 Crude Oil Supply and Disposition statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (−), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.

- Crude Losses and Product Supplied appear as labeled in Table 4.

- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousand barrels in Table 1.

- Total Crude Oil Ending Stocks appear in thousand barrels in Table 2.

- Total Imports appear in Table 4.

Note 9.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (−), Exports, and Product Supplied appear as labeled in Table 4.

- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (−), Exports, and Product Supplied appear as labeled in Table 4.

- Ending Stocks appear in thousand barrels in Table 2.

Note 9.5 Liquefied Petroleum Gases Supply and Disposition statistics represent the aggregation of statistics on ethane, propane, butane, butane-propane mixtures, ethane-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stocks Withdrawal (+) or Addition (−), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.

- Ending stocks appear in thousand barrels in Table 2.

Note 9.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.

- Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (−), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3): Crude oil (including lease condensate) production for *Alaska*, *Lower 48 States*, and *Total U.S.* are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 3), and taking the difference to equal production in the Lower 48 States.

- Line (5): *SPR Imports* are reported on Survey Form ERA-60.

- Line (12): *Total Other Sources* equals crude oil stock withdrawal (+) or addition (−) plus unaccounted for crude oil minus crude losses in Table 2.

- Line (14): Natural gas plant liquids (NGPL) *Production* equals field production of natural gas liquids (NGL) plus field production of finished petroleum products in Table 2.

- Line (15): NGPL *Imports* equals the sum of the im-

ports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.

- Line (16): NGPL *Stock Withdrawal (+) or Addition (−)* is equal to the sum of stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.

- Line (17) equals the sum of lines (14), (15), and (16).

- Line (18): Unfinished oils and gasoline blending components *Stock Withdrawal (+) or Addition (−)* equals stock withdrawal (+) or addition (−) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.

- Line (20): *Other Hydrocarbons and Alcohol New Supply* equals the field production of same in Table 2.

- Line (21): *Refinery Processing Gain* is a balancing item equal to total refinery production minus total refinery input in Table 2.

- Line (23): *Total Other Liquids* equals the sum of lines (18) through (22).

- Line (24): *Total Production of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil product supplied in Table 2.

- Line (25): *Gross Imports of Refined Products* equals imports of LPG plus imports of finished petroleum products in Table 2.

- Line (26): *Exports of Refined Products* equals exports of LPG plus exports of finished petroleum products in Table 2.

- Line (27): *Net Imports of Refined Products* equals the difference between lines (25) and (26).

- Line (28): *Total New Supply of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; minus crude oil product supplied plus imports of LPG and finished petroleum products; minus exports of LPG and finished petroleum products in Table 2.

- Line (29): *Refined Products Stocks Withdrawal (+) or Addition (−)* equals the sum of stock withdrawal (+) or addition (−) for LPG and finished petroleum products in Table 2.

- Line (30): *Total Petroleum Products Supplied for Domestic Use* equals total products supplied in Table 2.

- Lines (31) through (35) equal the respective products supplied in Table 2.

- Line (36): *Other Products Supplied* equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock use, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, unfinished oils, motor gasoline blending components, aviation gasoline blending components and miscellaneous products supplied in Table 2.

- Line (37): *Total Product Supplied* is equal to total products supplied in Table 2.

- The sum of lines (38) and (39), stocks of *Crude Oil and Lease Condensate (Excluding SPR)* and stocks held by the *Strategic Petroleum Reserve*, equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-813.

- Line (43): stocks of *Refined Products*, equals the sum of LPG and finished petroleum product stocks in Table 2.

Note 10: New Stock Basis

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,420; and 1982 - 1,462.

- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).

- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.

- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.

- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.

- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.

- Stock withdrawal calculations beginning in 1975, 1981, 1983 were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Products Supply and Disposition" table in the Summary Statistics, is now reported on a component basis (ethane, propane, normal butane, isobutane and pentanes plus). Most of these stocks will now appear in the "Liquefied Petroleum Gases Supply and Disposition" table of the Summary Statistics. This change will affect stocks reported and stock withdrawals in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 1983 - 108

- Other Petroleum Products: 1983 - 248

Note 11: Stocks of Alaskan Crude Oil

Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 12: Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting systems.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings throughout 1980. However, estimates of the magnitudes of differences in the majo data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for moto gasoline was consistently about 2 percent lower tha the Federal Highway Administration (FHWA) gasoline sales data series, which is derived from State tax re ceipts. This difference increased to about 4 percent i 1979 and 5 percent in 1980. There are two primar causes for this growing difference. First, refinery oper ations, particularly the flows of unfinished oils and th redesignation of some finished products, were not be ing accurately described on the EIA survey forms. Sec ond, a large amount of gasoline was being produce away from refineries at "downstream blending sta tions" to take advantage of provisions in regulation governing the amount of lead that could be added These blending stations were not reporting gasolin production to the EIA until the data system wa changed in January 1981.

Quantitative estimates of the magnitude of the diffe ence—in EIA's gasoline product supplied data in 197 and 1980 have been made by the EIA and the America Petroleum Institute (API). The following table provide 1979 and 1980 data as published in the *Petroleum State ment Annual*, as well as EIA and API estimates of "re cast" motor gasoline product supplied. EIA recast est mates were based upon preliminary monthly informa tion in the *Monthly Petroleum Statement*. The range displayed in the EIA column reflect uncertainty in th estimates. Also shown are the FHWA motor gasolin sales statistics for those years. EIA has recently pub lished a study of the quality of these FHWA data.[1]

---

[1] Office of Energy Information Validation, Energy Informatio Administration, U.S. Department of Energy, *Error Profile of th Motor Fuel Taxation Data used to Establish and Monitor Sta Emergency Conservation Targets* (Washington, D.C: Dece ber, 1981).

Finished Motor Gasoline Product Supplied on Old and New Basis (Thousand Barrels per Day)

	1979				1980			
	EIA Reported	API Recast	EIA Recast	FHWA[1]	EIA Reported	API Recast	EIA Recast	FHWA[1]
Jan	6,830	7,230	7,084-7,246	6,984	6,323	6,789	6,630-6,791	6,672
Feb	7,254	7,496	7,389-7,568	7,538	6,596	6,983	6,831-7,003	6,830
Mar	7,229	7,414	7,301-7,463	7,316	6,406	6,753	6,607-6,768	6,713
Apr	7,055	7,300	7,187-7,353	7,375	6,800	7,014	6,886-7,052	6,981
May	7,213	7,429	7,313-7,475	7,428	6,729	6,954	6,823-6,984	7,044
Jun	7,191	7,483	7,350-7,516	7,441	6,657	6,966	6,824-6,991	7,049
Jul	6,902	7,241	7,105-7,266	7,299	6,743	6,973	6,960	7,132
Aug	7,330	7,546	7,426-7,588	7,619	6,648	6,841	6,828	7,090
Sep	6,881	7,122	7,016-7,262	7,232	6,510	6,692	6,962	6,685
Nov	6,791	7,068	6,956-7,122	7,142	6,234	6,507	6,516	6,951
Dec	6,730	7,106	6,966-7,127	7,064	6,632	6,948	6,936	6,993
Average	7,034	7,302	7,183-7,347	7,309	6,579	6,882	6,806-6,889	6,925

[1] FHWA gasoline statistics published in their 1979 Table MF-33G, 08-06-80, contain aviation gasoline as well as motor gasoline. Only motor gasoline data are included in published 1980 data. Consequently, the 1979 data shown above were reduced by subtracting aviation gasoline product supplied quantities as published by EIA in the 1979 *Petroleum Statement Annual*. The 1980 FHWA data published in their 1980 Table MF-33GA, August 1981, did not require this adjustment.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oil produced by a refinery is shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981 this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1980 as published (adjusted) and on the same basis as 1981 statistics are now being completed (unadjusted) to permit comparison between 1980 and 1981 data series. Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Adjusted and Unadjusted Refinery Production, and Unadjusted Product Supplied of Distillate and Residual Fuel Oils, by Month for 1979 and 1980 (Thousand Barrels Per Day)

1979

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,043	3,108	65	4,646	1,912	1,946	34	3,594
Feb.	2,888	2,945	57	4,869	1,792	1,822	30	3,625
Mar.	3,019	3,026	7	3,671	1,719	1,723	4	3,243
Apr.	2,945	2,978	32	3,048	1,639	1,656	17	2,524
May	3,066	3,093	27	3,025	1,586	1,600	14	2,517
Jun.	3,153	3,187	35	2,743	1,548	1,566	18	2,601
Jul.	3,305	3,344	38	2,601	1,575	1,594	20	2,471
Aug.	3,321	3,359	38	2,799	1,584	1,603	20	2,570
Sep.	3,354	3,306	– 48	2,599	1,627	1,602	– 25	2,584
Oct.	3,251	3,217	– 34	3,085	1,629	1,612	– 17	2,523
Nov.	3,239	3,200	– 39	3,208	1,736	1,716	– 20	2,795
Dec.	3,221	3,238	17	3,725	1,894	1,903	9	3,022
Average	3,152	3,169	16	3,327	1,687	1,695	8	2,834

1980

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,013	3,093	80	3,794	1,771	1,812	41	3,108
Feb.	2,766	2,888	122	3,834	1,773	1,836	63	3,168
Mar.	2,557	2,690	133	3,312	1,584	1,652	68	2,726
Apr.	2,460	2,554	94	2,729	1,595	1,643	48	2,492
May	2,474	2,610	136	2,538	1,509	1,579	70	2,305
Jun.	2,646	2,721	75	2,392	1,575	1,613	38	2,359
Jul.	2,689	2,783	94	2,343	1,480	1,528	48	2,339
Aug.	2,461	2,582	121	2,258	1,444	1,506	62	2,348
Sep.	2,686	2,726	40	2,627	1,495	1,516	21	2,380
Oct.	2,589	2,650	61	2,981	1,512	1,543	31	2,258
Nov.	2,703	2,823	120	3,069	1,579	1,641	62	2,513
Dec.	2,891	3,052	161	3,776	1,660	1,743	83	2,762
Average	2,661	2,764	103	2,969	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Sinc these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

ote 13: NGL Import/Export lgorithms

ginning in January 1984, the Energy Information Ad- nistration (EIA) implemented changes in the report- of natural gas liquid (NGL) supply data, moving from nine-product slate to a five-component slate that cor- sponds to industry record-keeping practices. anges could not be made to the import and export stems. Therefore, in order to allocate imports and ex- rts of mixed NGL streams to individual component rts, the EIA developed a statistical algorithm.

Imports

The imports algorithm is based on information gathered from the larger importers of NGL, who were asked to provide component analyses of the products they imported during the first six months of 1983. The percentages shown in Exhibit 1 are derived from the weighted averages of the data provided by the importers.

(HIBIT 1. ALGORITHMS FOR ALLOCATING NGL IMPORTS

PRODUCT SLATE	*Ethane*	*Propane*	*Normal butane*	*Isobutane*	*Pentanes Plus*
atural Gasoline & Isopentane (EIA-814)					100%
ant Condensate (EIA-814)					100%
hane (IM-145)	100%				
itane (IM-145)			60%	40%	
itane-Propane Mixtures (IM-145)		40%	35%	20%	5%
hane-Propane Mixtures (IM-145)	80%	20%			

xports

ie export algorithm is based on information gathered om the larger exporters of NGL, who were asked to ovide component analyses of the products they exported during 1983. The percentages shown in Exhibit 2 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by PAD of exportation, due to the wide variation of components in the mixed streams.

(HIBIT 2. ALGORITHMS FOR ALLOCATING NGL EXPORTS

		EIA Component Slate				
PRODUCT	*P.A.D.*	*Ethane*	*Propane*	*Normal Butane*	*Isobutane*	*Pentanes Plus*
hane	All	100%				
opane	All		100%			
itane	All			100%		
ixed Streams	I, IV, V		40%	60%		
	II	30%	25%	15%	15%	15%
	III		80%	20%		

.S. GOVERNMENT PRINTING OFFICE: 1984-421-766:109

LIBRARY U. OF I. URBANA-CHAMPAIGN

DOE F 1340.1
(2-80)

Energy Information Administration

GPO SUBSCRIPTION ORDER FORM

A

(For use in ordering EIA Publications only — Read Ordering Information Section before completing form.)

SEND ORDER FORM TO: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402

Enclosed is $ ____________ ☐ Check

☐ Money order, or charge to my Deposit Account No.

☐☐☐☐☐☐☐ - ☐

Order No. ____________

VISA

MasterCard

Credit Card Orders Only

Total charges $ ____________ Fill in the boxes below

Credit Card No. ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Expiration Date Month/Year ☐☐☐☐ ☐ VISA ☐ Master Card

PLEASE PRINT OR TYPE **NAME AND ADDRESS**

NAME – FIRST, LAST

COMPANY NAME OR ADDITIONAL ADDRESS LINE

STREET ADDRESS

CITY **STATE** **ZIP CODE**

(OR COUNTRY)

PRINT OR TYPE TITLES OF ITEMS YOU WISH TO RECEIVE ON A SUBSCRIPTION BASIS:

FOR OFFICE USE ONLY

QUANTITY		CHARGES
....	ENCLOSED	....
....	TO BE MAILED	....
....	SUBSCRIPTIONS	....
	POSTAGE	....
	FOREIGN HANDLING	....
	MMOB	....
	OPNR	....
....	UPNS	
....	DISCOUNT	
....	REFUND	

LIBRARY U. OF I. URBANA-CHAMPAIGN

Energy Information Administration
Forrestal Building
Washington, D.C. 20585

FIRST—CLASS MAIL
POSTAGE & FEES PAID
U.S. DEPT. OF ENERGY
PERMIT NO. G 20

FIRST CLASS MAIL

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

[illegible]

)C.
3. 11/5:
/2

etroleum
upply
lonthly

bruary 1984

blished:
ril 1984

Energy Information Administration
Washington, D.C.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Subscription Information

Subscriptions

This publication is available on an annual subscription basis from the Superintendent of Documents, U.S. Government Printing Office (GPO). Prices and ordering information for this and other Energy Information Administration (EIA) publications may be obtained from the GPO or the EIA's National Energy Information Center. Addresses and telephone numbers appear below. An order form is enclosed for your convenience.

National Energy Information Center, EI-20
Energy Information Administration
Room 1F-048, Forrestal Building
Washington, D.C. 20585
(202) 252-8800

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
(202) 783-3238

Information

Questions on energy statistics may be directed to the National Energy Information Center at the address and phone number shown above.

Released for printing: April 24, 1984

etroleum
upply
onthly

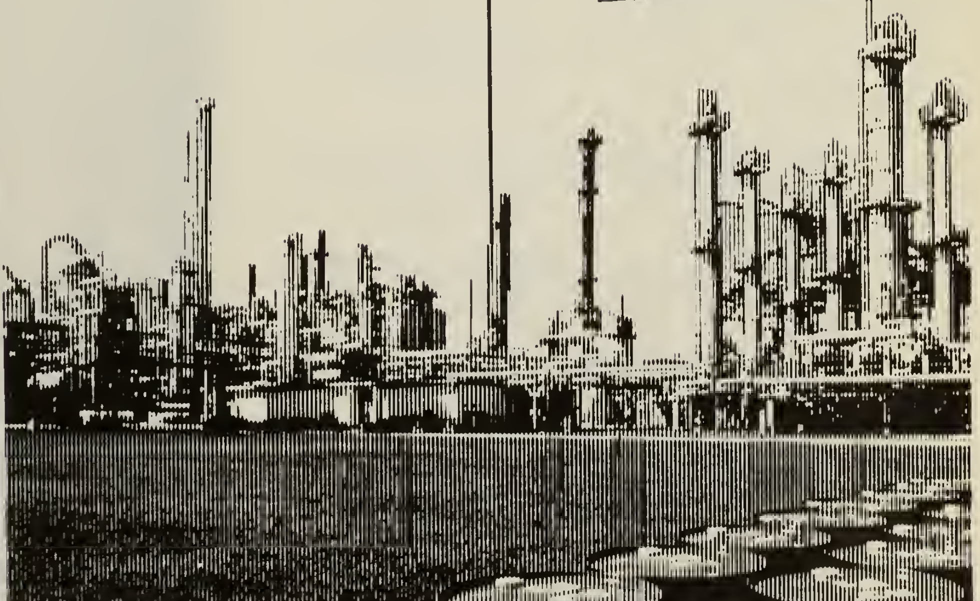
bruary 1984

lished:
il 1984

Energy Information Administration
Washington, D.C. 20585

DOE/EIA-0109 (84/02)
Dist. Category UC-98

DEPOSITORY
MAY 03 1984
UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN



his report was prepared by the
nergy Information Administration,
e independent statistical and
nalytical agency within the De-
artment of Energy. The informa-
on contained herein should not
e construed as advocating or
ecessarily reflecting any policy po-
tion of the Department of Energy
r any other organization.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Contents

This Month in the PSM

This issue of the *Petroleum Supply Monthly* features "Motor Gasoline Outlook for Summer 1984," beginning on page ix. A companion article, "Recent Motor Gasoline Trends," begins on page xi. A box describing "What is Motor Gasoline?" can be found on page xii. Also, this issue of the *PSM* features "New Patterns Emerging in U.S. Petroleum Imports and Exports," beginning on page xvi and accompanied by boxes on the "Carribbean Refining Industry" (page xxi) and "Export Regulations" (page xxii).

Page

Petroleum Focus

Petroleum Supply Summary.................. vii
Motor Gasoline Outlook For Summer 1984 ix
Recent Motor Gasoline Trends xi
New Patterns Emerging in U.S. Petroleum Imports and Exports...................... xvi

Summary Statistics—through March 1984

Crude Oil and Petroleum Products Overview.. 2
Crude Oil Supply and Disposition........... 6
Crude Oil and Petroleum Products Imports... 8
Finished Motor Gasoline Supply and Disposition................................ 11
Distillate Fuel Oil Supply and Disposition.... 13
Residual Fuel Oil Supply and Disposition 15
Liquefied Petroleum Gases Supply and Disposition................................ 17
Other Petroleum Products Supply and Disposition................................ 18
Sources 19

Detailed Statistics—February 1984

National Statistics

1. U.S. Petroleum Balance................ 23
2. Supply and Disposition of Crude Oil and Petroleum Products.................. 24
3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products....... 25
4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products....... 26
5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products 27

Supply and Disposition of Crude Oil and Petroleum Products by PAD Districts

6. PAD District I......................... 28
7. PAD District II........................ 29
8. PAD District III 30
9. PAD District IV 31
10. PAD District V........................ 32

Production of Crude Oil and Lease Condensate

11. Production by PAD District and State, December 1983 33

Natural Gas Processing

12. Plant Production of Petroleum Products by PAD Districts...................... 34

Refinery Operations by PAD District

13. Refinery Input of Crude Oil and Petroleum Products....................... 35
14. Refinery Production of Petroleum Products 36
15. Percent Refinery Yield of Petroleum Products 37

LIBRARY U. OF I. URBANA-CHAMPAIGN

Contents (Continued)

Page

Imports and Exports of Crude Oil and Petroleum Products
16. Imports by PAD District 38
17. Imports by Source and PAD District...... 39
18. Exports by PAD District 43
19. Exports by Destination 44

Stocks
20. Stocks of Crude Oil and Petroleum Products by PAD District.................. 46

Transportation of Crude Oil and Petroleum Products Between PAD Districts
21. Movements by Pipeline, Tanker and Barge 51
22. Movements by Pipeline 52
23. Movements by Tanker and Barge 52
24. Net Movements by Pipeline, Tanker, and Barge 53

Heavy Fuel Oils by Sulfur Content
25. Production of Residual Fuel Oil 54
26. Stocks of Residual Fuel Oil............. 54
27. Movements by Tanker and Barge 54
28. Imports of Residual Fuel Oil by Country of Origin............................ 55
29. Imports of Residual Fuel Oil by State of Entry............................... 56

Glossary

Definitions of Petroleum Products and Other Terms 59
Bureau of Mines Petroleum Refining Districts and PAD Districts 65

Maps

PAD Districts 66
Bureau of Mines Refinery Districts 66
District Map, Oil and Gas Division, Railroad Commission of Texas 67

Explanatory Notes

1. Data Collection Methodology 71
   1.1 Weekly Petroleum Supply Reporting System (WPSRS) 71
   1.2 Monthly Petroleum Supply Reporting System (MPSRS) 72
   1.3 Census Import (IM-145) and Export (EM-522 and EM 594) Data 74
2. Supply 75
3. Domestic Crude Oil Production 75
4. Disposition 76
5. Stocks 76
6. Average Stock Levels.................... 76
7. Movements 77
8. Preliminary Monthly Statistics 77
9. Notes on Tables 77

Page
10. New Stock Basis 79
11. Stocks of Alaskan Crude Oil............. 80
12. Changes in Petroleum Industry Reporting .. 80
13. NGL Import/Export Algorithms 83

Figures

Petroleum Overview 4
Petroleum Products Supplied 4
Crude Oil Supply and Disposition 5
Crude Oil Ending Stocks.................... 5
Motor Gasoline Supply and Disposition 10
Motor Gasoline Ending Stocks............... 10
Distillate Fuel Oil Supply and Disposition 12
Distillate Fuel Oil Ending Stocks 12
Residual Fuel Oil Supply and Disposition...... 14
Residual Fuel Oil Ending Stocks 14
Liquefied Petroleum Gases Supply and Disposition.................................. 16
Liquefied Petroleum Gases Ending Stocks 16

Petroleum Focus

LIBRARY U. OF I. URBANA-CHAMPAIGN

Petroleum Supply Summary

	March			Cumulative January Through March		
verage Volume for Period Aillion Barrels Per Day)	1984	1983	% Change	1984	1983	% Change
roducts Supplied						
Motor Gasoline	6.5	6.8	– 5.4	6.3	6.3	0.6
Distillate Fuel Oil	3.1	2.9	6.1	3.1	2.8	11.0
Residual Fuel Oil	1.4	1.6	– 7.8	1.7	1.6	6.9
Other Products	4.6	4.2	9.1	4.8	4.3	9.9
Total	15.5	15.5	0.4	15.9	15.0	5.9
rude Inputs to Refineries	12.0	10.9	10.6	11.9	10.9	9.5
roduction						
Crude Oil, Natural Gas Liquids, and Other[1]	10.4	10.3	1.4	10.4	10.3	0.6
nports						
Crude Oil[2]	3.4	2.0	67.6	3.0	2.3	33.1
SPR	0.2	0.2	– 14.4	0.2	0.2	– 25.2
Products	1.6	1.4	12.3	2.2	1.4	53.9
Total	5.1	3.6	41.8	5.4	3.9	37.6
xports						
Crude Oil	0.2	0.2	6.3	0.2	0.2	– 4.4
Products	0.4	0.6	– 36.7	0.4	0.7	– 41.8
Total	0.6	0.8	– 27.3	0.6	0.9	– 34.1
tock Withdrawal						
Crude Oil[2]	0.2	0.2	—	0.1	– 0.1	—
Products	0.2	1.8	—	(s)	1.3	—
tocks at End of Period Aillion Barrels)						
rude Oil						
SPR	392	312	25.6			
Other	332	359	– 7.3			
Total	724	670	8.0			
roducts						
Motor Gasoline[3]	242	224	7.8			
Distillate Fuel Oil	113	119	– 5.2			
Residual Fuel Oil	48	46	2.7			
Other	307	316	– 2.8			
Total	709	705	0.5			
otal Crude Oil and Products	1,433	1,375	4.2			

Includes alcohol and other hydrocarbon liquids.
Excludes Strategic Petroleum Reserve (SPR).
Including blending components.
s) = Less than 0.05 million barrels per day.
IOTE: Percent changes are based on unrounded values. March 1984 data are estimates based on weekly data, except for exports, NGL production, other hydrocarbons, and alcohol which are February 1984 monthly values. Totals nay not be equal to sum of components due to independent rounding.
ource: Energy Information Administration, Petroleum Supply Monthly, February 1984.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Motor Gasoline Outlook for Summer 1984

Like the economy, the Nation's highways are expected to be busier this summer than last. As a result, 1984 summer motor gasoline demand should be slightly above last summer's level and its highest since 1979. However, because of improved new car sales and overall fleet efficiency, motor gasoline demand is expected to increase less than vehicle mileage. Because crude oil supplies and excess refinery capacity are readily available for motor gasoline production, no supply problems are anticipated for the 1984 summer driving season.

According to the Energy Information Administration's Short-Term Integrated Forecasting System, demand for motor gasoline is expected to range between 6.8 and 7.0 million barrels per day for the summer months (June, July, and August) of 1984. The level of demand will depend on economic activity, crude oil prices, and gasoline prices. The average retail motor gasoline price could range from $1.12 to $1.30 per gallon, depending on the course of the economic recovery and crude oil prices. However, if the average gasoline price remains around $1.22 or $1.23 per gallon (a decline in the real price), demand for motor gasoline this summer is forecast to be 7.0 million barrels per day. About 60 percent of the demand will be for unleaded gasoline.

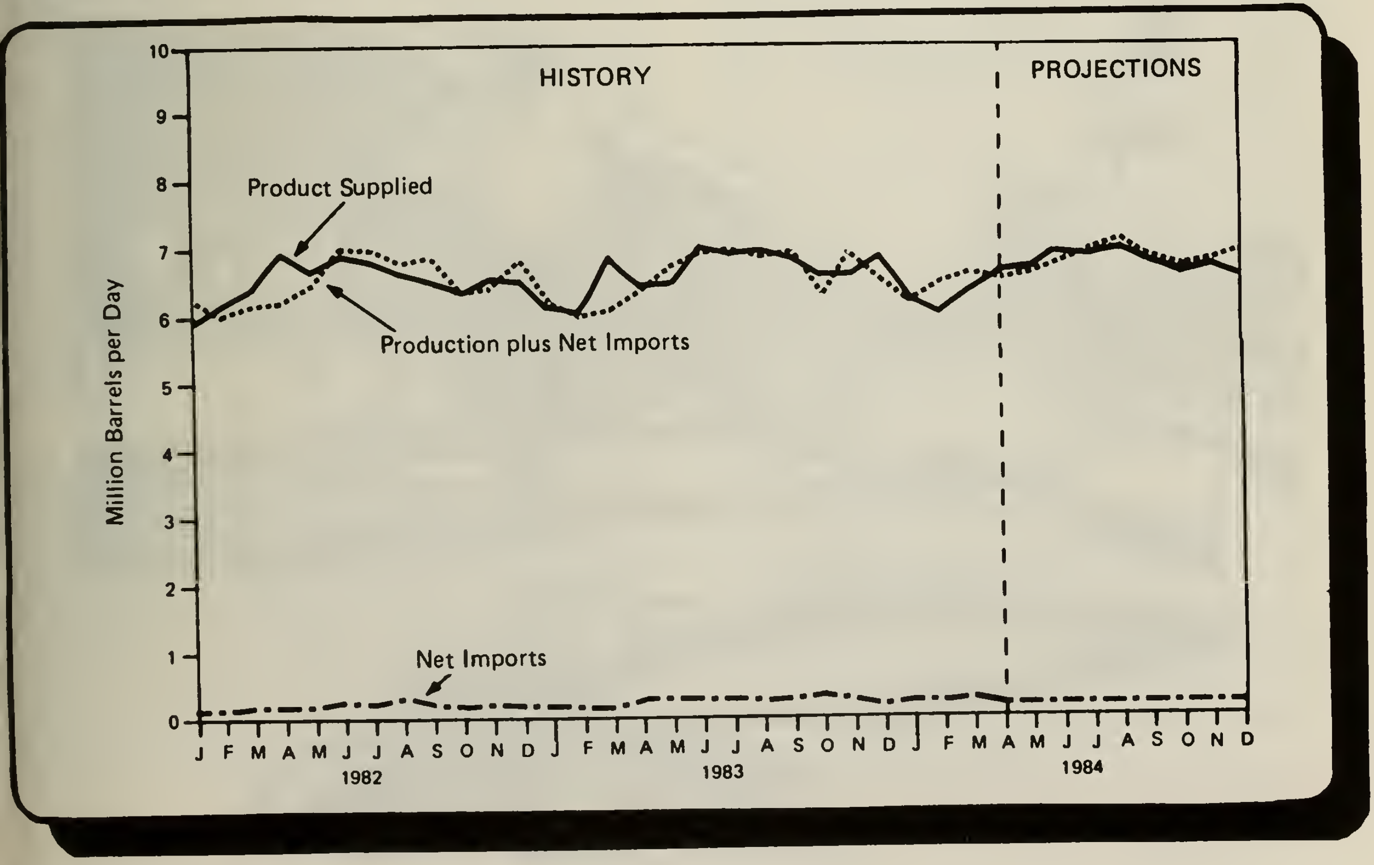
Automobile travel in 1984 is expected to increase because of growth in real disposable personal income and industrial production and because of declines in the real price of gasoline. Between 1983 and 1984, real disposable income and industrial production are projected to grow 4.6 percent and 9.9 percent, respectively. The real price of gasoline is projected to decline 4.5 percent. Because of the strength of the economy, new car sales are expected to be strong, exceeding 10 million units in 1984. New cars have improved fuel efficiencies, and they require less gasoline per mile traveled. As more miles are traveled in newer cars and as new cars replace older cars, the average fleet efficiency improves. This means passenger car mileage will respond more to economic recovery than will gasoline demand.[1]

Motor gasoline is supplied through domestic refining and blending, imports, and withdrawal from stocks (see Figure 1). Production at refineries and gasoline blending plants accounts for more than 95 percent of supply. This summer, motor gasoline production is expected to average 6.7 million barrels per day, about 1 percent greater than the rates of 1982 and 1983 and about 5 percent greater than the rate in 1981.

---

[1] Energy Information Administration, *Short-Term Energy Outlook* (February 1984), DOE/EIA-0202 (84/1Q) (Washington, D.C., 1984).

Figure 1. Motor Gasoline Supply



Source: Energy Information Administration, "Petroleum Supply Monthly," and Short-Term Integrated Forecasting System.

LIBRARY U. OF I. URBANA-CHAMPAIGN

The basic raw material for gasoline production is crude oil. Crude oil stocks at the end of March 1984 were 332 million barrels, about 7 percent below March 1983 stocks, but 47 million barrels above the minimum operating inventory of 285 million barrels estimated by the National Petroleum Council.[2] Crude oil was available during 1983 at an average price to refiners of $28.99 per barrel, including imported crude oil which cost refiners, on average, $29.35 per barrel. Crude oil inputs to refineries averaged 12.3 million barrels per day last summer and refineries operated at 74.5 percent of capacity while producing, on average, 6.6 million barrels per day of gasoline. It should be possible to reach a crude input level of 12.3 or 12.4 million barrels per day this summer from domestic supplies and crude oil imports. At such levels of inputs, refinery utilization rates would be higher than last year's rates because capacity now is about 500,000 barrels per day less than capacity last summer.

During the 1983 summer driving season, net imports of motor gasoline were higher than in any driving season in the past 10 years. They averaged 256,000 barrels per day, but still represented only 4 percent of supply. Summertime imports came primarily from the Virgin Islands, Venezuela, and the Netherlands. Most imports came to the East Coast. Net imports this summer are expected to return to lower levels—around 180,000 barrels per day.

In line with recent trends toward careful inventory management, refiners and distributors are expected to keep summer gasoline inventories below the levels of recent years, but adequately above minimum operating levels. This year, primary stocks did not follow the usual pattern of accumulation to a February peak. However gasoline stock levels at the end of March 1984 were slightly above stock levels a year earlier. Stocks fell in December 1983 and early in 1984 because extremely cold weather interrupted natural gas supplies to Gulf Coast refineries. The resulting refinery shutdowns caused sharply lower production levels on the Gulf Coast. Stock levels began to build again in early February. Stocks reached 237 million barrels at the end of February and 242 million barrels at the end of March. In contrast, stocks last winter were 251 million barrels at the end of February and then dropped sharply. Last March, 27 million barrels moved out of primary inventories before a new 5-cent-per-gallon Federal gasoline tax became effective on April 1, 1983.

The outlook for summer 1984 is for a moderate increase in demand for motor gasoline. Again this year, the demand will be met largely by current production, using readily available refining capacity and crude oil supplies. Imports and inventory changes will be used to a lesser extent to meet the difference. Because each region of the country except the East Coast produces enough motor gasoline to supply 80 percent of its demand, any possible distribution problems are likely to be short-lived and geographically limited.

---

[2] National Petroleum Council, *Petroleum Inventories and Storage Capacity—An Interim Report* (Washington, D.C., November 1983).

Recent Motor Gasoline Trends

vents in recent years have added to the complexity of nderstanding and foreseeing changes in motor gaso- ne demand and supply. Since 1978 motor gasoline, ke other petroleum products, has responded to crude il price increases, regulatory changes, economic slow- own, and recovery. Changes associated with the in- reasing use of unleaded gasoline and declining use of eaded gasoline have also had an impact. This article escribes recent trends in gasoline demand, supply, nd prices; it also discusses some of the major factors ontributing to these trends and likely to continue in- uencing the motor gasoline market.

Motor Gasoline Demand

Iotor gasoline demand (measured as product sup- lied) peaked at 7.4 million barrels per day in 1978 when emand for all petroleum products was at its highest evel. Between 1978 and 1982, gasoline demand, like ne demand for total petroleum products, declined. In 983, gasoline demand was 1 percent above 1982 lev- ls. Although smaller in absolute terms since 1978, mo- or gasoline's share of total petroleum demand has een growing. In 1983, demand for motor gasoline was 4 percent of the total demand for petroleum products. t this level, gasoline accounts for 5 percentage points nore of total petroleum demand than it did in 1978.

n recent years, motor gasoline demand has moved vith a number of short-run and long-run changes in orices and consumer choices. The demand for motor jasoline reflects primarily a demand for transportation. t has fallen whenever the price of gasoline increased and whenever economic activity declined. Drivers responded to price increases by driving less; they also responded to reductions in their incomes by driving less. n the short run, the engine types and fuel efficiencies of their cars, and continuing requirements for travel to work, school, or shop restrict drivers' ability to reduce gasoline consumption. But over a longer time period, drivers may consider other options if these are affordable and reliable. Drivers may reduce necessary transportation mileage by moving closer to travel destinations. As cars get older, drivers may replace them with more fuel efficient vehicles or perhaps with vehicles powered by some fuel other than gasoline.

New cars are notably more fuel efficient than the cars of the 1970's. Domestic automobile makers have been required to improve the fuel efficiency of their new vehicles under the Energy Production and Conservation Act of 1975. Corporate Average Fuel Economy (CAFE) standards require a sales-weighted new-car efficiency of 27.5 miles per gallon (mpg) by 1985, almost twice the 1975 average fuel efficiency. The average fuel efficiency of new cars was 27.4 mpg in 1982.[1] Although this almost matches the 1985 standards, preliminary 1983 data indicate that average new car efficiency declined in 1983 as consumers chose larger, less efficient new cars instead of smaller ones.

The average fuel efficiency of all U.S. cars remains much lower than new car efficiency because many older cars remain in the fleet. Economic slowdowns kept new car sales in the early 1980's below historic rates.[2] Average fuel efficiency of all U.S. cars was 16.3 mpg in 1982, compared to 14.1 mpg in 1978.[3]

Almost all new cars have gasoline engines. Except for diesel engines, engines using alternative fuels have not reached the mass market. Purchases of diesel-powered cars are limited because their initial cost is higher than that of gasoline-powered cars and because their performance has been considered poorer. In addition, diesel fuel prices have increased relative to gasoline prices since 1978, cutting the price incentive for switching. Diesel passenger cars still make up only about 2 percent of all passenger vehicles.[4] When compared to fuel-switching that occurred with residual fuel oil for electricity generation or distillate fuel oil for home heating, gasoline has been largely unaffected by fuel-switching. This is the primary reason why gasoline's share of total petroleum product demand has increased. Although the last few years have seen less fuel-switching for gasoline than for other petroleum products, this does not mean that fuel-switching will not occur. It may simply mean that the time span for change will be longer than once thought.

Although the demand for finished motor gasoline has declined since 1978, the relative demand for unleaded gasoline has grown from 34.0 percent of total finished gasoline demand in 1978 to 55.1 percent in 1983. The unleaded share of total gasoline demand grew 6 percent or more each year in the late 1970's, but has grown about 3 percent annually in the 1980's.

While use of unleaded gasoline continues to grow, various factors have contributed to a slowdown in the rate of growth. The key to the growth of unleaded gasoline use is new car sales, because most new cars are designed to run on unleaded fuel only. Leaded gasoline deactivates the catalytic converters that U.S. automobiles use to meet auto-emission standards. New car sales, however, fell sharply in 1981 and 1982 because of the economic recession. Many old cars remained on the road. Although older cars could use unleaded gasoline, leaded gasoline was offered at lower prices (see box, page xii). These circumstances discouraged growth of unleaded gasoline and supported sales of leaded gasoline.

---

[1] Energy Information Administration, *Annual Report of Energy Conservation Indicators for 1982* DOE/EIA-0441 (82) (Washington, D.C., January 1984) and *Supplement to Energy Conservation Indicators.*

[2] David L. Greene, "Highway Fuel Use: Trends and Factors," *Proceedings of the Energy Information Administration Symposium on Petroleum Supply Information*, DOE/EIA-0425 Arlington, Virginia, August 1983), p. 197.

[3] EIA, *Annual Report of Energy Conservation Indicators for 1982* and Supplement.

[4] Greene, "Highway Fuel Use," p. 183.

LIBRARY U. OF I. URBANA-CHAMPAIGN

What is Motor Gasoline?

Motor gasoline is the liquid petroleum product most often used to fuel spark-ignition internal combustion engines in motor vehicles. It is a mixture of liquid hydrocarbons, usually containing 5 to 12 carbon atoms per molecule, which boils in the temperature range of 90 to 400 degrees Fahrenheit. It has a specific gravity of approximately 0.74. Within this general definition, gasolines differ in ways that are important to engine performance and therefore to gasoline marketing. Anti-knock and volatility properties are of particular importance. (See Glossary)

The anti-knock properties of a motor gasoline are measured by the octane number of the gasoline. Because iso-octane burns cleanly and evenly in combustion engines -- avoiding the explosions and losses of power which drivers notice as knocking -- and heptane burns poorly, other hydrocarbon streams are compared to blends of iso-octane and heptane to describe their anti-knock properties. A liquid doing as well as 100 percent iso-octane is assigned an octane value of 100. Another liquid might compare to an 80-20 mix of iso-octane and heptane, earning an octane number of 80. Octane numbers calculated in special test situations of mild operating conditions (the research (R) octane number) are averaged with octane numbers from more severe operating conditions (the motor (M) octane number) to produce the octane number posted on the gasoline pump (R+M)/2.

As automobiles were designed to be more powerful and efficient, their higher compression engines required higher octane values to prevent knocking. Gasoline distilled directly from crude oil did not satisfy the increasing octane requirements. This encouraged construction of additional complex facilities at refineries to manufacture more of the high octane components. However, the cheapest method for raising the octane value of gasoline was the addition of lead components such as tetraethyl lead (TEL) or tetramethyl lead (TML). Because adding these chemicals to liquid gasoline, which is naturally unleaded, was the inexpensive way to achieve desired octane levels, it was widespread. In 1970, however, Clean Air Act amendments were passed that regulated fuel additives to gasoline. Because of lead's toxicity and effect on automobile emission systems, the Act particularly established allowable levels of lead. The law defined leaded and unleaded gasoline and required that after July 1, 1974, all gasoline service stations of specific sizes offer for sale at least one grade of unleaded gasoline of not less than 87 octane (R+M)/2 method.

Unleaded gasoline was defined as gasoline containing not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Small refiners and blenders were allowed to produce leaded gasoline with higher lead content than large refiners until July 1, 1983. Permissible levels of lead were lowered in phases. Since mid-1983, no gasoline producer may produce leaded gasoline whose average lead content during the calendar quarter exceeds 1.10 grams of lead per gallon of leaded gasoline. Interrefinery averaging of lead content is allowed and "lead rights" trading has developed to facilitate this.

Since the use of lead compounds for octane boosting is restricted, producers have been motivated to increase octane values through refinery processing and to find other permissible additives. There are many petroleum products with high octane properties; they include aromatics (such as benzene, toluene, and xylene), olefins, and isoparaffins. While very small quantities of these products are included in straight crude distillation outputs, the yield of these components is increased by downstream processing; i.e., the further processing of output from crude oil distillation units in facilities such as catalytic reformers, catalytic crackers, or hydrocrackers. These components are also produced in isomerization and alkylation facilities. Because of the need for additional equipment and processing, and also because of the alternative uses for these richer products as petrochemical feedstocks, they are expensive. Other less expensive octane boosters such as methanol, methyl tertiary butyl ether (MTBE), and blends of tertiary butyl alcohol and methanol are being promoted. In several states, alcohol-based additives receive special tax advantages.

In addition to their octane properties, gasolines are blended to have a range of volatilities. High volatility components help engines to start easily in cold weather, but can also vaporize too quickly, causing vaporlock and fuel line blockages. Low volatility components do not ignite as easily, but have a higher energy content and are more economical. The proportions of high, medium, and low volatility components are adjusted according to altitude, climate, and season.

Other performance features of gasolines are enhanced with other additives. Detergents are used to keep carburetors and other engine parts clean and performing well. Anti-icing additives keep fuel lines and carburetors from developing ice. Still other additives protect against rust, corrosion, gum, and engine wear.

The gasoline that a driver uses to fill his tank represents a choice among many types of gasolines. The choice is most certainly affected by the performance objectives for the vehicle and by the driver's pocketbook.

In addition, in a series of annual studies, the Environmental Protection Agency (EPA) reports that some new cars have been "misfueled"; i.e., fueled with leaded gasoline although they were designed for unleaded gasoline (with a catalytic converter). The amount of gasoline improperly used is difficult to estimate. In the 1982 EPA study, misfueling was suspected (because of the presence of lead in exhaust pipes) in 10.6 percent of the automobiles and trucks tested.[5] Because misfueling is hard to measure precisely, EPA considers evidence of physical tampering more conclusive. In the same study, 16.7 percent of the vehicles had some sign of tampering; trucks showed more signs of tampering than automobiles. The EPA proposes that the motivations for these actions are lower prices and the perception of enhanced performance, because the leaded regular gasoline has a higher octane rating than unleaded regular gasoline.

Further growth in demand for unleaded gasoline and decline in demand for leaded gasoline will depend on new car sales, retirements of older cars, and limits on misfueling. To hasten this process, the EPA is considering accelerating its schedule, which now phases out leaded gasoline production in the early 1990's.

Except for the growth in demand for unleaded gasoline, patterns of regional gasoline demand followed national trends in the past 5 years. Demand for motor gasoline fell about the same degree in all regions; the relative demand position of the regions did not change. Petroleum Administration for Defense (PAD) Districts I and II, the East Coast and Midwest, account for about two-thirds of national demand—in 1983, 33 and 32 percent, respectively.

The same year, PAD Districts III and V, had virtually equal shares of demand, 15 and 16 percent, respectively. PAD District IV, the Rocky Mountains, represents about 3 to 4 percent of national demand. Although the national demand for unleaded gasoline passed the 50 percent mark in 1982, demand for unleaded gasoline remained below 50 percent in the Midwest and Rocky Mountain districts. Since then unleaded gasoline demand has passed leaded gasoline demand in the Midwest, but has not yet passed it in the Rocky Mountain district.

Because gasoline is used for passenger vehicles, light trucks, small recreational vehicles, boats, and lawnmowers, the demand is moderately seasonal. Demand is highest in the summer months, corresponding to use for vacation travel and recreational vehicles.

Motor Gasoline Supply

Motor gasoline is supplied in the United States from a combination of current production, imports, and stock withdrawal. The United States produced about 95 percent of its 1983 demand, imported about 4 percent, and reduced stocks for the remaining 1 percent.

Finished motor gasoline production occurs at refineries and at gasoline blending plants where gasoline components are combined. These components include a large number of hydrocarbon streams (low and high octane gasoline, naphthas, and natural gas liquids) produced at petroleum refineries, petrochemical plants, and natural gas processing plants. In many cases, additives that are not petroleum-based (e.g., lead) are included to enhance performance characteristics (see accompanying box).

Gasoline production occurs at large and small facilities throughout the United States. In December 1983, 184 refineries and gasoline blending plants reported production of finished motor gasoline on EIA-Form 810, "Monthly Refinery Report." Most of these facilities reported production of both leaded and unleaded gasoline. Of the 184 facilities, 183 reported finished leaded gasoline production and 163 reported finished unleaded gasoline production.

Twenty-two facilities produced more than 50,000 barrels per day of unleaded gasoline; only six reported leaded gasoline production at this rate. Of the facilities with any unleaded gasoline production, 41 percent produced less than 10,000 barrels per day; of the facilities producing leaded gasoline, 45 percent produced less than 10,000 barrels per day. Twenty facilities reported that they produced only leaded gasoline. Eighteen of these facilities produced under 10,000 barrels per day. Between January 1983 and December 1983, there was a net decline of 11 gasoline production facilities.

In recent years, regulatory changes have affected the number of facilities for gasoline production. The number of refineries and blending facilities peaked at 324 on January 1, 1981. An important factor in the growth in the number of refineries between 1974 and 1981 was the existence of the Crude Oil Entitlements Program. This program assured and subsidized the acquisition of crude oil by small refiners. Large numbers of small refiners shut down after crude oil prices were decontrolled and the Entitlements Program was terminated in 1981. On January 1, 1983, there were 258 operable refineries.

Another important regulatory factor has affected gasoline production directly. Until July 1, 1983, small refineries and blenders were allowed to have higher lead content in their leaded gasoline outputs than larger refineries.[6] This meant the small refineries could rely more on inexpensive lead additives to achieve marketable octane levels. The intent was to give small facilities that produced low octane gasoline streams time to upgrade or find alternative supplies. In the meantime, they would not have to meet the same lead standards as larger facilities and could continue to produce. Since July 1, 1983, all sizes of refineries must meet the same lead limits. It is possible, however, for refineries that do not use the full 1.1 grams of lead per gallon in their leaded gasoline to trade their excess "lead rights" to refineries that have lead levels exceeding the limit, achieving an interrefinery average of 1.1 grams per gallon.

---

[5] Larry Walz, *Motor Vehicle Tampering Survey-1982*, National Enforcement Investigations Center, EPA-330/1-83-001 (Denver, Colorado, April 1983).

[6] Small refineries were those facilities that were in operation or under construction before October 1, 1976; produced 10,000 barrels of gasoline or less each compliance period (usually a quarter); and were not owned or controlled by any refiner that had a total combined average daily production of greater than 70,000 barrels of gasoline during any compliance period after July 1, 1981.

About 44 percent of the Nation's gasoline was produced in the Gulf Coast region in 1983. The Midwest region accounted for another 28 percent and the West Coast, East Coast, and Rocky Mountain regions follow in that order. This ranking has been unchanged for many years. In 1983, the Rocky Mountain region was the only one where production of leaded gasoline exceeded production of unleaded gasoline.

Nationwide, finished gasoline represents 47 to 49 percent of refinery production. Gasoline's share of total refinery production has increased with the development and widespread construction of downstream processing facilities. Before the introduction of the first of these downstream processes, cracking, just before World War I, gasoline was only about 15 percent of refinery output. In 1983, gasoline's share of total production ranged from 43 to 57 percent in the different districts. At some facilities, gasoline represents more than 60 percent of output. Facilities are able to achieve high levels of gasoline output by having extensive downstream capacity. The percentage of finished gasoline may also be raised by methods that do not depend on capital equipment. When lead is added to raise octane levels, a larger proportion of the gasoline-range hydrocarbon stream can be finished and made marketable.

Because gasoline production was unchanged between 1982 and 1983, the small increase in gasoline demand was supplied by additional imports and stock withdrawals. Finished gasoline imports were 249,000 barrels per day in 1983—small by comparison with residual fuel oil, but still a record level. Gasoline exports were 10,000 barrels per day. Imports of finished gasoline came into this country from 28 locations outside the United States (50 States and District of Columbia). The leading countries of origin (or shipment) were the Virgin Islands, Venezuela, the Netherlands, and Romania. The Virgin Islands, Venezuela, and the Netherlands have been important sources for several years. Leaded gasoline accounted for 53 percent of the 1983 finished gasoline imports. Gasoline blending components were also imported in small quantities—about 36,000 barrels per day.

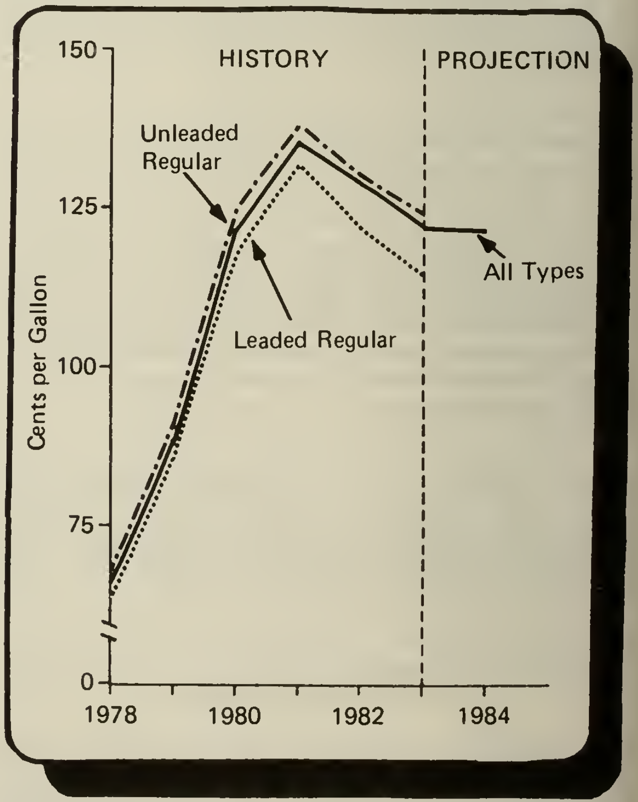
Gasoline stock levels during 1983 were highest in January and February. This is the usual pattern for primary stocks—gradual buildup of stocks through the fall and winter for drawdowns in spring and summer. Last year stocks fell especially sharply—27 million barrels—in March because a new Federal gasoline tax became effective April 1. After the spring drawdown, gasoline stocks remained about the same as in 1982. The stock levels of 1982 and 1983 were, however, lower than levels of 1980 and 1981. Lower stock levels have become desirable as inventory carrying costs have increased and crude oil supplies have become more certain. Reflecting these changes the National Petroleum Council lowered its estimate of the national minimum operating level for total gasoline (including blending components) to 200 million barrels in November 1983, down from its 1979 estimate of 210 million barrels.[7]

Because regional gasoline production and demand levels do not necessarily correspond, gasoline is transported between regions by pipelines, tankers, and barges. The East Coast and Midwest receive large shipments of gasoline from the Gulf Coast. Most of the gasoline travels by pipeline, but one-fifth of East Coast receipts arrive in the Southern Atlantic region by water.

Motor Gasoline Prices

Gasoline prices have been front-page news in recent years. Between 1978 and their peak in 1981, retail prices increased 108 percent in nominal terms and 60 percent in 1972 dollars. Since then, gasoline prices have fallen in both nominal and real dollar measures. Average retail gasoline prices in 1983 averaged $1.22 per gallon, compared with $1.35 in 1981 (see Figure 1). (Prices in 1983 were 57 cents more per gallon than in 1978, but this was

Figure 1. Motor Gasoline Prices (Nominal)



Source: Energy Information Administration, "Monthly Energy Review," "Weekly Petroleum Status Report," and "Short-Term Energy Outlook."

---

[7] National Petroleum Council, *Petroleum Inventories and Storage Capacity.*

only 31 percent more in 1972 dollars.)[8] The recent declines in gasoline prices are good news for consumers, because motor gasoline is the most widely consumed petroleum product in the United States.

Gasoline prices are determined by the interaction between demand and supply. They depend on what consumers are willing to pay and on what it costs producers and suppliers to bring the product to the consumer. These costs include the taxes levied by Federal, State, and local governments. The Federal Government tax on gasoline is now 9 cents a gallon, raised by 5 cents on April 1, 1983. Fifty States and the District of Columbia have State taxes that range from 5 cents per gallon in Texas to 16 cents per gallon in Minnesota and Washington.[9] Several States and localities also levy sales (percentage) taxes. In most States, motor fuel taxes fund highway construction, maintenance, and safety programs.

In different time spans, consumers are able to respond to higher price in different ways. Since 1978, they have reduced passenger car mileage and continued to purchase new fuel-efficient autos. They have switched to self-service retailing and have reduced their purchases of premium gasoline. They have also increased the frequency of misfueling.

On the supply side, there have been several events affecting costs in the years since 1978. Costs of supply include raw material costs, production costs, storage costs, and marketing costs.

- Following the Iranian revolution, the price of crude oil, as measured by the composite refiner acquisition cost, increased from $12.46 per barrel in 1978 to $35.24 in 1981 before falling back to $28.99 per barrel in 1983.
- The number of refineries declined from 302 to 258. Most of the refineries that closed were smaller and older refineries.[10]
- The cost of holding inventories increased because interest rates increased. If inventories are acquired with borrowed funds, the loan charges are high. If a company's cash is used to acquire gasoline, the foregone earnings are high. In both cases, companies have an incentive to review and minimize their precautionary inventory requirements.[11] The results are seen in the lower inventories of the last 2 years.
- The number of retail outlets declined 19 percent, compared to a decline in consumption of 11 percent. This concentration of gasoline outlets means the average outlet is selling more.[12]

The net effect of these changes should be to reduce the number of marginal producers and distributors and to enhance economies of scale for those that remain.

Retail gasoline prices vary across the country and by season. Different state and local taxes are an important reason for the regional price differences, but transportation costs between the refinery and retail outlet are important also. In 1983, Anchorage, Washington, D.C., and Honolulu had the highest retail gasoline prices of the cities surveyed by the Bureau of Labor Statistics. Houston, Dallas, St. Louis, and Kansas City consistently have the lowest retail prices.[13] Both regionally and nationally, gasoline prices are usually highest in the summer when demand is also highest.

The retail price of gasoline varies for each type. Prices ascend from leaded regular through unleaded regular and leaded premium to unleaded premium (refer to Figure 1). The prices of leaded gasolines and regular gasolines are lower, respectively, than the prices of unleaded gasolines and premium gasolines. Both unleaded and premium gasolines have higher proportions of the petroleum-based high octane components (see box). Leaded regular gasoline is about 6 to 8 cents cheaper than unleaded regular gasoline. Compared to their prices in 1978 (the first year of the unleaded index), the 1983 prices for the two types of gasoline have increased to the same extent. Through 1982, however, the price of unleaded regular gasoline increased slightly less than the price of leaded regular gasoline each year (see Table 1).

Table 1. Gasoline Price Trends, 1978-1983
(Index 1978 = 100)

Year	All Types	Leaded Regular	Unleaded Regular
1978	100	100	100
1979	135	137	135
1980	187	190	186
1981	208	209	206
1982	196	195	193
1983	188	185	185

Source: Energy Information Administration, "Monthly Energy Review," and "Weekly Petroleum Status Report."

In the first months of 1984, retail gasoline prices were little different from prices in the closing months of 1983. The *Short-Term Energy Outlook* (February 1984) assumed that the effects of the various demand and supply factors would leave the nominal price of gasoline unchanged for the remainder of 1984 and would lower the real price 4.5 percent.

---

[8] Prices and Gross National Product deflators are from *Short-Term Energy Outlook* (February 1984) and Energy Information Administration, *1982 Annual Energy Outlook*, DOE/EIA-0383(82) (Washington, D.C., May 1983).

[9] Energy Information Administration, *Petroleum Marketing Monthly* DOE/EIA-0380(83/12(2)) (December 1983(2)), p. 90.

[10] Elizabeth E. Campbell, "Trends in Refinery Capacity and Utilization," *Proceedings of the Energy Information Administration Symposium on Petroleum Supply Information*, DOE/EIA-0425 (Arlington, Virginia, August 1983).

[11] Richard D. Farmer, "Minimum Operating Inventories for Gasoline, Distillate Fuel Oil, and Residual Fuel Oil," *Proceedings of the Energy Information Administration Symposium on Petroleum Supply Information*, DOE/EIA-0425 (Arlington, Virginia, August 1983).

[12] Bureau of Industrial Economics, U.S. Department of Commerce, *Franchising in the Economy, 1981-1983* (Washington, D.C., January 1983).

[13] .Bureau of Labor Statistics, U.S. Department of Labor, "Consumer Prices: Energy and Foods," monthly release (Washington, D.C.).

New Patterns Emerging in U.S. Petroleum Imports and Exports

Recent trends in total petroleum demand—influenced by the recession and current economic recovery as well as by declining world oil prices—have combined to effect significant changes in the volumes, qualities, sources, and destinations of this Nation's foreign trade in crude oil and refined products.

For example, from 1978, the peak year for domestic petroleum consumption, through 1983:

- The average annual rate of gross crude oil imports declined by 3.1 million barrels per day.
- The share of "heavy" crude oil imports (below 25 degrees American Petroleum Institute (API) gravity) increased relative to the share of "light" imports (above 37 degrees API gravity).
- The share of high-sulfur crude oil imports (2.5 percent or more sulfur content) increased relative to the share of low-sulfur imports (less than 0.5 percent sulfur content).
- The share of crude oil imports from Organization of Petroleum Exporting Countries (OPEC) producers declined from 82 percent to 44 percent of the U.S. total.
- East Coast imports of residual fuel oil (primarily from the Caribbean) decreased by more than 50 percent.
- Exports of refined petroleum products increased nearly threefold, to 575,000 barrels per day.

This article describes these and related changes in U.S. trade in crude oil and refined products. As explained in the article, the basis for this trade is differences among the costs of supplying petroleum from alternative sources. The general level of economic activity, the regulatory environment, interest rates, international supply conditions, etc., may all influence the relative costs of supply from domestic production, inventory drawdown, and imports.

Crude Oil Imports Levels Reflect Domestic Demand

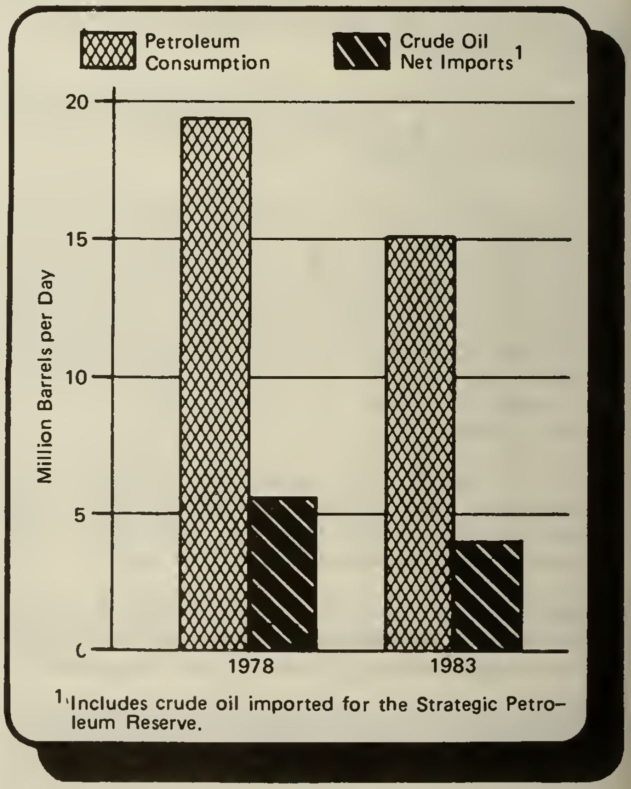
Domestic petroleum price controls, the periodic success of OPEC pricing strategies, and uncertainty concerning the reliability of foreign supplies have combined to make domestic crude oil the lowest cost source of oil to domestic refineries since the early 1970's. Between 1959 and 1973, however, the relative supply economics had favored imports, and the Federal Government's Mandatory Oil Import Program acted to protect domestic producers from the low-cost crude oils of the newly developed, prolific fields of the Middle East.

Now, as the higher cost product, imported crude oil generally represents the marginal source of oil supply to this country. And, as the marginal source, imported oil absorbs most of the variation in domestic petroleum demand.

In recent years, net U.S. crude oil imports dropped markedly in response to declining demand for petroleum products.[1] Consumption of petroleum, measured as petroleum products supplied, dropped steadily from its record 1978 level of 18.8 million barrels per day to an average of 15.2 million barrels per day during 1983 (see Figure 1). Stable domestic crude oil production and reduced refinery operations, with little drawdown of primary crude oil stocks, accompanied the decline.

Lower demand for crude oil and petroleum products resulted, in part, from reduced levels of economic activ-

Figure 1. Petroleum Consumption and Crude Oil Net Imports, 1978 and 1983



[1] Includes crude oil imported for the Strategic Petroleum Reserve.

Source: Energy Information Administration, "Petroleum Supply Monthly," December 1983(3).

---

[1] Gross crude oil imports, including purchases for the Strategic Petroleum Reserve, less crude oil exports.

ty, fuel switching, and energy conservation invest- nents by homes and businesses. It is likely that efforts by distributors and retailers to lower their own, secon- lary inventories also contributed to a lower effective lemand for primary supply.

s a result, gross imports of crude oil declined from an verage of 6.4 million barrels per day during 1978 to 3.3 nillion barrels per day during 1983. Foreign oil, which ccounted for about 40 percent of U.S. refinery receipts n 1978, made up about 26 percent of receipts in 1983. dditional imports of crude oil for the Strategic Petrole- ım Reserve, however, average 0.2 million barrels per lay during both 1978 and 1983.

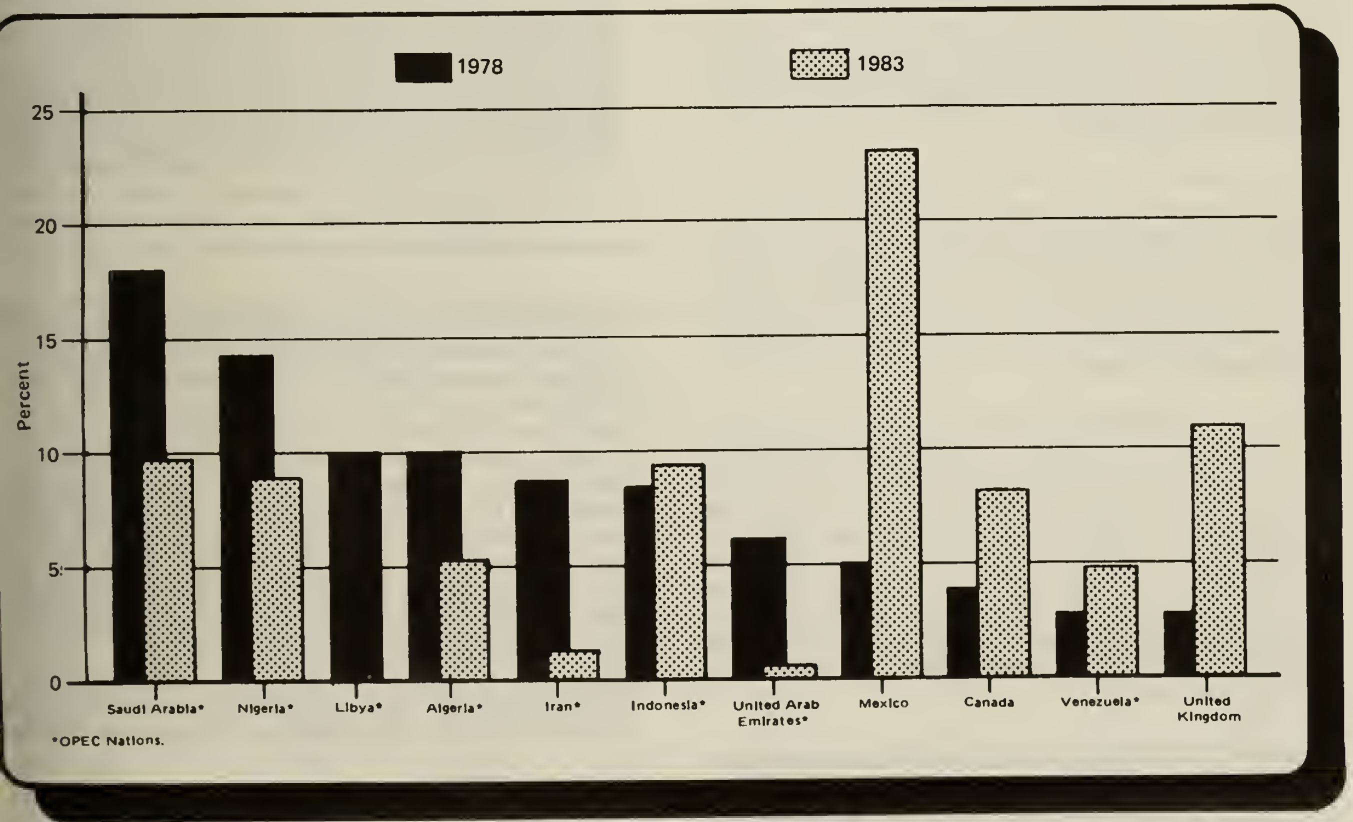
Shift Among Traditional Import Sources

he world market price for crude oil reflects the mar- jinal cost of the most expensive source of supply. But, vhen producers are governments, as opposed to profit- naximizing firms, these supply costs may account for olitical constraints in addition to the basic resource costs of locating, extracting, and delivering the oil. Supported by target production levels for individual OPEC members and the swing role of Saudi Arabia, the nflexibility of OPEC oil prices in the face of the in- creased worldwide competition and decreasing de- nand of the last 2 years has raised the cost of incre- nental OPEC oil purchases relative to that for other sources. Thus, not only the total volume of U.S. crude oil imports but also the relative contribution of certain countries to that total may be expected to vary with changing U.S. petroleum demand.

Figure 2 traces the amplitudes in U.S. imports from major producing countries in response to changing demand levels since 1978—the peak year for U.S. petroleum consumption. What stands out in this figure is the variability in imports from OPEC sources in general and from Saudi Arabia in particular. The growing role of Mexican and United Kingdom (i.e., North Sea) oil imports is also clear.

Crude oil imports from OPEC countries into the United States declined substantially between 1978 and 1983, while those from non-OPEC producers increased. During 1978, OPEC members had supplied nearly 82 percent of U.S. crude oil imports. The three leading suppliers were Saudi Arabia, Nigeria, and Libya. By 1983, OPEC members were supplying less than one-half of gross U.S. crude oil imports, and Mexico had become the major foreign supplier. The United Kingdom ranked second as a source of U.S. crude oil imports in 1983, up from eleventh place in 1978. The percentages of crude oil imported from Indonesia and Venezuela—countries that have adopted a more competitive stance in the face of declining demand—increased slightly, while the percentages from Algeria, Iran, Libya, and Saudi Arabia declined. The United States imported no crude oil from Libya during 1983.

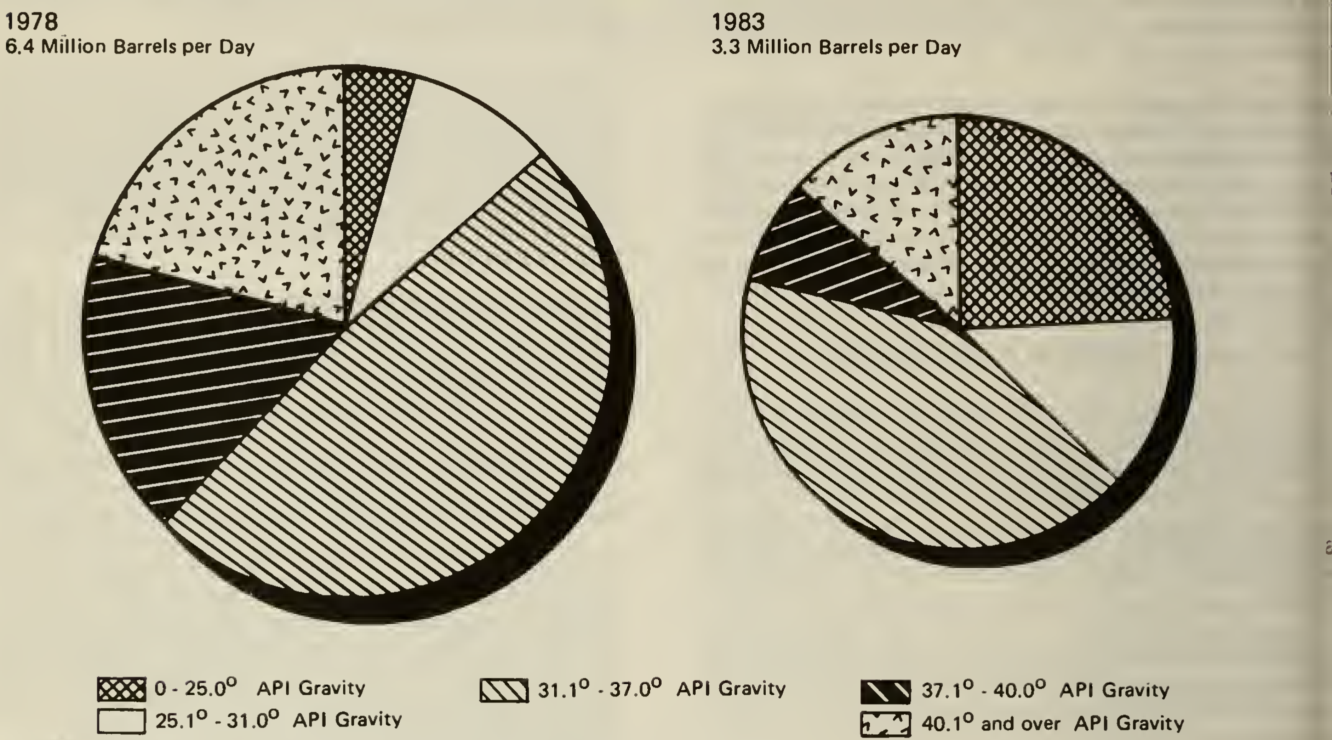
Figure 2. Imports of Crude Oil from Selected Countries, 1978 and 1983 (Percent of Total)



Source: Energy Information Administration, "Annual Petroleum Statement," 1978, and "Petroleum Supply Monthly," January through December 1983(3).

LIBRARY U. OF I. URBANA-CHAMPAIGN

Figure 3. API Gravity of Imported Crude Oil, 1978 and 1983



1978
6.4 Million Barrels per Day

1983
3.3 Million Barrels per Day

Source: Energy Information Administration, Form ERA-60, "Report of Oil Imports into the United States and Puerto Rico."

Changes in import levels and sources, however, should continue to be viewed in the context of the U.S. business cycle and the interaction among economic activity, demand for petroleum products, inventory strategies, and the price of oil.

Thus, in recent months, with the emerging recovery of the U.S. economy, imports from OPEC nations have again been increasing. By December 1983, imports of OPEC crude oil had reached 1.6 million barrels per day, almost double the first-quarter rate and nearly one-half of the U.S. crude oil imports. This latest increase reflected stepped-up imports from Algeria, Indonesia, Nigeria, and Saudi Arabia.

The recent increase in imports of Saudi Arabian crude oil has also been associated with the success of that country's sales in the spot market by its newly-formed Government trading company, Norbec, Ltd. Norbec markets Saudi Arabian crudes on a spot basis and at official prices to buyers in Japan, the United States, and Western European countries. This large-scale Saudi entry into the spot market represents a significant milestone in the development of the world oil market, widening the access of non-ARAMCO companies to Saudi production.[2]

Increased Marketing of Heavy and Sour Crude Oils

Changes in import volumes and sources are also represented in the mix of crude oil qualities available to the Nation's refineries.

Crude oils can be classified by several characteristics, such as viscosity, asphalt or paraffin base, mineral content, etc. The chemical composition of the crude oil input stream to a refinery both conditions the capital investment required to economically process that oil and constrains the mix of products that can be obtained. At the same time, the market demand for refined products and the complexity of the refinery also indicate the relative value of different crude oil types.

In the course of the 1981–82 economic recession, the general reduction in petroleum consumption was distributed unevenly across consuming sectors, with industrial demand affected more severely than either residential or transportation demand. The industrial sector also had responded more vigorously to the conservation and fuel-switching incentives of the 1979 and 1980 oil price increases. As a result, recent years have witnessed a basic demand shift toward the lighter petroleum products (such as gasoline) and away from the heavier ones (such as residual fuel oil). Increasing relative demands for unleaded gasoline and for transportation diesel fuel also mean refineries must produce higher quality streams of these lighter products.

Responding to a long-term outlook for declining crude oil quality and a continuation of the product demand

---

[2] Arabian American Oil Company is a partnership of Saudi Arabia with Exxon, Socal, Texaco, and Mobil.

ıift already underway, many U.S. refiners have in-
eased their downstream processing capabilities, add-
g catalytic cracking, hydrocracking, and hydrotreat-
g capacity. Refiners can now make a given mix of fin-
hed products from a wider range of crude oil types.
his new flexibility has permitted them to reduce their
ependence on higher-gravity and lower-sulfur feed-
ocks, which command a significant, although declin-
g, price premium in the world market.

principal source for many of the high-quality crude
ls is the OPEC countries. Thus, the recent shift away
om OPEC imports associated with the general decline
oil imports was facilitated by the enhanced ability of
.S. refiners to pick and choose among crude oil types.

Gravity

ne important index of crude oil quality, indicating the
ix of products that can be obtained, is weight per unit
olume, or gravity. A system of degrees gravity devel-
ped by the API is the most commonly used measure of
pecific gravity. Often, the heavier crudes—those with
w API gravity—will contain high levels of sulfur and
ther mineral impurities as well.

he average gravity of crude oils imported into the
nited States during 1983 was 31.0 degrees API, down
om 33.7 degrees in 1978. As the total volume of crude
il imports declined over the period, the percentage of
eavier (below 25 degrees API gravity) crude oils im-
orted increased at the expense of the lighter (above 37
egrees API gravity), and higher-priced, crude oils (see
igure 3). These increases were mainly in the midcon-
nental States, where refiners had been especially ac-
ve in adding downstream capacity that permitted
em to process the heavier crudes. Seven out of every
0 barrels of crude oil imported during 1983 fell into the
ange of 0 to 37.0 degrees API (see Table 1), compared
ith 6 out of every 10 barrels during 1978.

Sulfur Content

Between 1978 and 1983, there was also a notable increase in the percentage of high-sulfur, or "sour," crude oils imported. As a result, the average sulfur content of crude oil imports rose during the period from 1.0 to 1.3 percent. High-sulfur crudes (2.5 percent or more sulfur) accounted for 25 percent of the imports in 1983, compared with only 5 percent in 1978. Imported crudes with less than 1.5 percent sulfur accounted for more than one-half of the 1983 volumes, down from over three-fourths during 1978 (see Figure 4).

The United States imported 0.8 million barrels per day of high-sulfur crude oil during 1983. Nearly all the high-sulfur crude oil imports were received by petroleum refineries east of the Continental Divide, and virtually all the relative growth in the imports of high-sulfur crude oil imports occurred there. Only small quantities of high-sulfur crude oils were imported for refining on the West Coast, which already processes large volumes of the heavy, sour California crude oils.

While there is already some reversal in the shift among import sources with the current recovery of U.S. petroleum demand, the restructuring of the domestic refining industry represents a more permanent change. So, without a significant reduction in price premiums placed on the lighter, less sour crude oils, a return to the average import qualities of recent years should not be expected.

Refined Products Account for Larger Share of Petroleum Imports

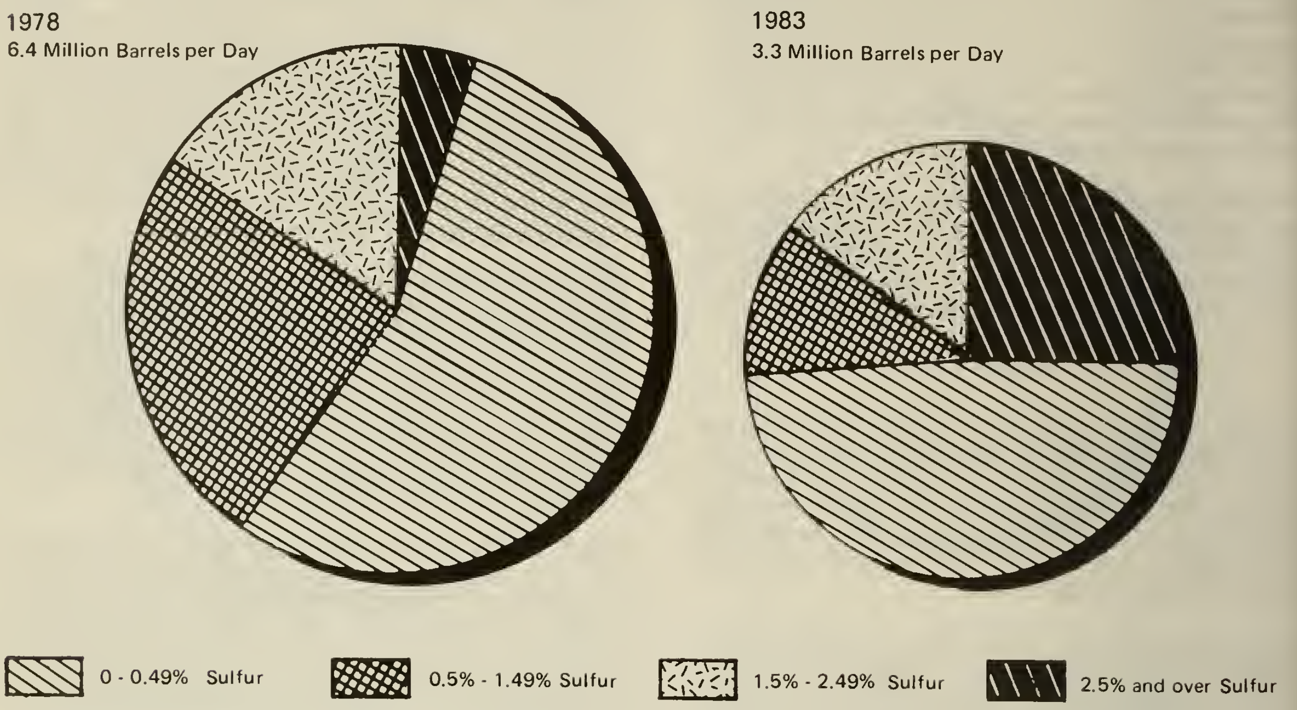
Domestic refinery output, based on the processing of both domestic and imported crude oils, has been increasingly supplemented by imports of refined products since 1981. Gross imports of petroleum products

able 1. Crude Oil Imports, 1983, by API Gravity and Sulfur Content (Thousand Barrels per Day)

	Percent Sulfur						
.PI Gravity	0–0.49	0.5–0.99	1.0–1.49	1.5–1.99	2.0–2.49	2.5 and over	Total
.PI Gravity							
0.0-10.0	26.0	2.0	0	0	0	129.1	157.1
0.1-15.0	0.8	0	0	1.6	9.3	85.9	97.6
5.1-20.0	1.9	0	(s)	2.6	28.4	10.2	43.0
0.1-25.0	28.0	22.9	2.1	13.9	17.6	431.7	516.1
5.1-28.0	58.1	5.7	2.1	0.9	56.7	111.5	235.0
8.1-31.0	73.4	40.7	40.3	22.8	55.5	37.0	269.6
1.1-34.0	254.2	11.0	115.6	241.9	11.3	11.8	645.8
4.1-37.0	501.6	33.1	64.7	26.3	8.4	4.3	638.5
7.1-40.0	287.9	30.0	(s)	3.1	0	0	321.0
0.1-44.0	222.6	1.1	(s)	1.7	0	(s)	225.7
4.1-and over	150.4	1.5	1.4	0	0	0	153.3
Total	1,604.7	148.0	226.5	314.7	187.2	821.4	3,302.5

s) Less than 500,000 barrels per day.
otals may not equal sum of components due to independent rounding.
ource: Energy Information Administration Form ERA-60, "Report of Oil Imports Into the United States and Puerto Rico."

Figure 4. Sulfur Content of Imported Crude Oil, 1978 and 1983



Source: Energy Information Administration, Form ERA-60, "Report of Oil Imports into the United States and Puerto Rico."

accounted for 11.1 percent of total domestic product supplied in 1983, up from a 10-year low of 9.7 percent in 1980. The annual rate of total product supplied had dropped by almost 1.9 million barrels per day over this period, but gross imports were relatively successful in maintaining their share of a declining U.S. market.

Although the goal here is to describe developments in the overall U.S. foreign trade in petroleum, it is worth noting that the recent upward trend for gross product imports has not been paralleled by that for net imports. As a result of increasing product exports, discussed below, the ratio of net imports of petroleum products to total products supplied declined from 8.1 percent in 1980 to 7.3 percent in 1983.

Basically, product imports may be expected to increase whenever foreign production costs are lower than domestic costs. Low-cost, seasonal operation of relatively uncomplex, heavy-fuel refineries in the Caribbean has been a particularly important source of winter supply for residual fuel oils to East Coast U.S. markets. (See Box on Caribbean refining industry.) In 1983, 57 percent of U.S. refined product imports came from the Caribbean Basin, 6 percent from Europe, 16 percent from Canada, and 10 percent from Africa and Asia.[3]

Residual fuel oil and liquefied petroleum gases (LPG) are two of the most heavily imported petroleum products. Almost 690,000 barrels per day of residual fuel oil and 190,000 barrels per day of LPG's were imported in 1983 (see Table 2). Also in 1983, imports of distillate fuel oils averaged 168,900 barrels per day, after falling to 93,300 barrels per day in 1982; and imports of motor gasoline were nearly one third higher than those 5 years earlier.

Table 2. Petroleum Product Imports, 1978 and 1983 (Thousand Barrels per Day)

Commodity	1978	1983
Liquefied Petroleum Gases	122.8	190.3
Finished Motor Gasoline	190.4	249.0
Distillate Fuel Oil	173.4	168.9
Residual Fuel Oil	1,355.2	689.3
Unfinished Oils	27.2	233.3
Others	138.7	155.1
Total All Products	2,007.7	1,685.9

Source: Energy Information Administration, "Annual Petroleum Statement," 1978, and "Petroleum Supply Monthly," 1983.

Residual Fuel Oil Imports Grow with Changes in U.S. Refining Industry

Residual fuel oil markets have been very weak in recent years. Reduced industrial residual fuel oil demand has been attributed to the severe 1981-82 recession, as well as to conservation and fuel switching in the wake of the sharp petroleum price increases of 1979 and 1980. Thus, although meeting a larger part of the U.S. residual fuel oil requirements, 1983 residual fuel oil imports were still about half their 1978 level.

---

[3] Caribbean Basin petroleum exporters include Puerto Rico, the U.S. Virgin Islands, the Bahamas, Mexico, the Netherlands Antilles, Trinidad and Tobago, and Venezuela.

Caribbean Refining Industry

Caribbean crude oil refineries supply more than half the U.S. demand for imported petroleum products. In 1983 five Caribbean nations, Puerto Rico, and the U.S. Virgin Islands supplied almost 57 percent of U.S. product imports. Three of the five Caribbean refining nations--Mexico, Trinidad and Tobago, and Venezuela--are oil producers. The other two nations--the Bahamas and the Netherlands Antilles--refine only imported crude oil.

The principal U.S. petroleum product import from the Caribbean is residual fuel oil--accounting for 47 percent of the total shipments received from this region in 1983. By contrast, the second biggest import, unfinished oils, contributed only 19 percent to the total.

The emphasis on residual fuel oil production characterizes refineries in both the U.S. Caribbean (Puerto Rico and the Virgin Islands) and the non-U.S. Caribbean. As a percentage of their total shipments, however, the non-U.S. Caribbean sells more than twice as much residual fuel oil as the U.S. Caribbean. Puerto Rico and U.S. Virgin Islands are this Nation's main Caribbean source of finished motor gasoline and distillate fuel oil imports.

Markets

Refineries in the U.S. Caribbean are primarily engaged in production for export. Except for certain products, like kerosene, the U.S. Caribbean generally exports more petroleum products than are consumed on the islands.

Within the non-U.S. Caribbean group, refineries in the Bahamas, Trinidad and Tobago, and the Netherlands Antilles are even more export oriented than the U.S. region. Mexican and Venezuelan refineries, however, operate to meet both export and domestic requirements. When the refining activity of these two large countries is included, more than 60 percent of distillate fuel oil, kerosene, liquid petroleum gas, and motor gasoline production in the non-U.S. Caribbean is consumed by domestic markets.

Refinery Complexity

Caribbean refineries are generally less complex than those in the United States, with some significant exceptions. The relationship between total downstream capacity and crude oil distillation capacity provides a general indication of refinery complexity (see Table below). On this basis, the structure of U.S. Caribbean refineries is comparable with that for the rest of the country. Mexican and Venezuelan refineries are less complex, while still maintaining significant capacity to produce the lighter fuels for domestic use. The smaller, non-U.S. island refineries represent relatively uncomplex operations. (The Bahamas has virtually no downstream process capability.) Accounting for the very heavy, Venezuelan crude oils commonly processed by many of the non-U.S. Caribbean refineries, the ability of these operations to produce lighter fuels is even more limited than directly indicated by the available downstream capacity.

Refinery Operations

Average refinery capacity utilization (measured as crude oil runs divided by crude oil distillation capacity) in the U.S. Caribbean in 1982 was 65 percent, slightly below that of the mainland United States, at 70 percent. Average 1983 utilization in the U.S. Caribbean was 62 percent. Activity at all these U.S. refineries had declined since 1979, although average utilization through the mid-1970's had been consistently above 80 percent. With the pickup in the U.S. economy in 1983, however, refinery utilization is now increasing.

Venezulan refineries were operated at 67 percent utilization in 1982--a relatively high level considering the low demand for residual fuel oil in that year. More striking is the 94 percent utilization of Mexican refineries in 1982. Considering the high energy and maintenance costs of operating refineries at this level, this intense production underscores (1) the effect of government price controls and (2) the importance attached by the Mexican government to bringing in foreign currency in this period.

The export refineries of the Bahamas, the Netherlands Antilles, and Trinidad and Tobago were being utilized at significantly less than the U.S. rate in 1982--at 37, 49, and 40 percent, respectively. The low annual average rate reflects the highly seasonal nature of the demand for their principal product, residual fuel oil, but contrasts sharply with the very high utilization rates for this region in the early 1970's when the U.S. Mandatory Oil Import Program was still in effect.

Operable Capacity of Petroleum Refineries, January 1, 1983 (Thousand Barrels per Stream Day)

			Non-U.S. Caribbean		
	U.S.	U.S. Caribbean	Mexico and Venezuela	Other Caribbean	Total
Crude Distillation	17,871	818	2,838	1,841	4,679
Vacuum Distillation	7,180	321	1,296	563	1,859
Thermal Operations	1,715	60	168	267	435
Catalytic Cracking	5,890	56	529	74	603
Catalytic Reforming	3,918	269	190	17	207
Catalytic Hydrocracking	883	15	20	0	20
Catalytic Hydrotreating	8,354	582	870	383	1,253
Total Downstream	27,940	1,303	3,073	1,304	4,377
Complexity Index (%)*	156	156	108	71	94

* Total downstream capacity divided by crude oil distillation capacity times 100.

The magnitude of the decline in residual fuel oil imports also reflects the high base from which this decline started. Exemption of East Coast residual fuel oil imports from the restrictions of the Mandatory Oil Import Program in the early 1970's and, after 1976, the granting of partial entitlements to East Coast residual fuel oil importers provided significant incentives to Caribbean producers. Termination of the Entitlements Program with the decontrol of crude oil prices in January 1981 ended this effective subsidy.

At the same time that product imports were being encouraged, the Small Refiner Bias of the Entitlements Program was subsidizing domestic investment in small-scale refinery operations that produced relatively high yields of residual fuel oil. Without this program, and the resulting increased domestic production, imports would likely have been greater yet.

Now, residual fuel oil imports are competing in what is the closest they have been to a free market in more than 15 years. On net, the shutdown of small, inefficient domestic refineries supported by the Entitlements Program has probably improved the relative economics of product imports.

Since 1972, most U.S. residual fuel oil imports have come from the Caribbean region. In 1972, about 83 percent of U.S. imports came from the Caribbean Basin, including Mexico and Venezuela. However, by 1983 this share had decreased to 66 percent, with an increasing share (9 percent) of a reduced market coming from African nations. Most residual fuel oil imports—87 percent in 1983—continue to be received by East Coast States. New York, New Jersey, and Massachusetts are the largest importers, with peak-season surges in residual fuel oil imports for electricity generation.

The current economic recovery along with a near-term outlook for continued increases in relative natural gas prices should act to stimulate residual fuel oil demand—which, in turn, should result in higher residual fuel oil imports. However, even while average import levels may increase, a return to the sharp seasonal swings in imports of the early 1970's should not be expected as long as the current availability of extra refining capacity in this country persists.

Liquefied Petroleum Gas Trade and World Natural Gas Markets

LPG's—including propane, butane, ethane, and petrochemical feedstocks such as propylene and butylene—are produced at both refineries and natural gas processing plants. Imports of LPG's have risen gradually since 1972, primarily reflecting a relative cost advantage enjoyed by foreign producers of natural gas. About 85 percent of U.S. LPG imports in 1972 came from Canada, and most of the balance came from Venezuela. By 1983 the Venezuelan share had been largely supplanted by supplies from Mexico and Saudi Arabia.

About 70 percent of 1983 LPG imports came into Midwestern States, and most growth in U.S. imports since 1972 has been in this region. Gulf Coast imports of LPG nearly doubled in this period, but that region's share of total imports remains small.

Export Regulations

The issue of Federal controls on petroleum exports was highlighted in 1983 with the debate on whether to allow exports of North Alaskan crude oil. Exports of crude oil and major refined products are regulated by an array of Federal laws.

The Export Administration Acts (EAA) of 1969 and 1979 have authorized the President to restrict exports when it is determined that those exports would be to the national detriment. The EAA provided the legal framework for the initial December 1973 imposition of quotas on gasoline, kerosene, distillates, aviation fuels, residual fuel oils, and most naphthas. Export licenses, but not quotas, were required for residual products such as coke and carbon black. However, exports of petrochemical feedstocks, waxes, and lubricating oils were not controlled.

Export quotas and licensing are managed by the Department of Commerce and enforced through the adoption of "Short Supply Control" regulations authorized by the EAA. Although the legislative basis for product quotas is still in place and export licenses are required, in 1981 the Department of Commerce removed all remaining quantity restrictions on refined product exports.

Predating the EAA, the Mineral Lands Leasing Act (MLLA) of 1920 and the Outer Continental Shelf Lands Act of 1953 both require a Presidential finding that any export of crude oil would not diminish the quantity or quality of oil available to the United States or increase imports. The Trans-Alaska Pipeline (TAP) Authorization Act of 1973 extends the provisions of the MLLA to Alaskan production transported via the TAP system. Finally, the Energy Policy and Conservation Act of 1975 required the President to promulgate export control regulations. The MLLA and the Naval Petroleum Reserve Act of 1976, however, enable the Federal Government to exempt from these restrictions oil from Federal lands that is exchanged with oil from adjacent foreign states.

Many of these Federal laws contain provisions that allow one-house Congressional vetoes of any Presidential finding that exports would be in the national interest. However, such provisions were recently declared unconstitutional by the Supreme Court decision in the case of Immigration and Naturalization Service vs. Chadha. Thus, some legislative remedy in this area may be anticipated in the next year. Although extension of the EAA is being discussed in Congress, no changes in that bill concerning petroleum exports are likely to be enacted this year.

Gross LPG imports, which accounted for only 6 percent of the total U.S. consumption of these products in 1972, were used to meet almost 13 percent of U.S. domestic requirements in 1983. Net imports followed the same doubling pattern—rising from 4 percent of consumption in 1972 to 8 percent in 1983. The increasing role of LPG imports has been especially stimulated by increases in U.S. natural gas prices permitted under the provisions of the 1978 Natural Gas Policy Act. At the same time, the relative cost advantage maintained by domestic producers of petrochemicals in the early

1970's has deteriorated. New natural gas-processing plants currently under construction in Saudi Arabia, Mexico, Canada, and other countries support an outlook for increased importation of low-cost LPG's and petrochemicals.

The Surge in Petroleum Product Exports

In the last 2 years, exports of refined petroleum products have represented an increasingly important claim on domestic resources. Following the December 1973 Arab oil embargo, quotas were established on the U.S. export of most petroleum products. (See box reviewing Federal export regulations.) Product exports, consisting primarily of residual fuel oil and petroleum coke, had averaged about 200,000 barrels per day before the embargo and remained at that level until 1981. By 1983, product exports had increased to 575,100 barrels per day, accounting for 3.8 percent beyond the total petroleum products supplied to domestic markets in that year.

The increase in exports came about in two steps. First, with the change in Administrations and the final decontrol of crude oil prices in January 1981, there was an immediate increase in product exports of more than 100,000 barrels per day. This initial surge appears to be related more to the psychological impact of decontrol than to any specific market or regulatory gain to exporters from the decontrol. Additional increases followed the October 1981 removal of all remaining quantity restrictions on product exports by the Department of Commerce. Total product exports averaged 366,700 barrels per day in 1981, 578,700 barrels per day in 1982, and 575,100 barrels per day in 1983.

This increase is attributable to residual fuel oil, petroleum coke, distillate fuel oil, and LPG's (see Table 3). Exports are coming almost exclusively from West Coast and Gulf Coast refineries, with residual fuel oil and coke supplied increasingly as uneconomic by-products of new downstream refining processes. This cheap, low-heat-content coke has been able to compete successfully abroad with coal in the generation of process heat (e.g., in the production of cement).

Table 3. Petroleum Product Exports, 1978 and 1983 (Thousand Barrels per Day)

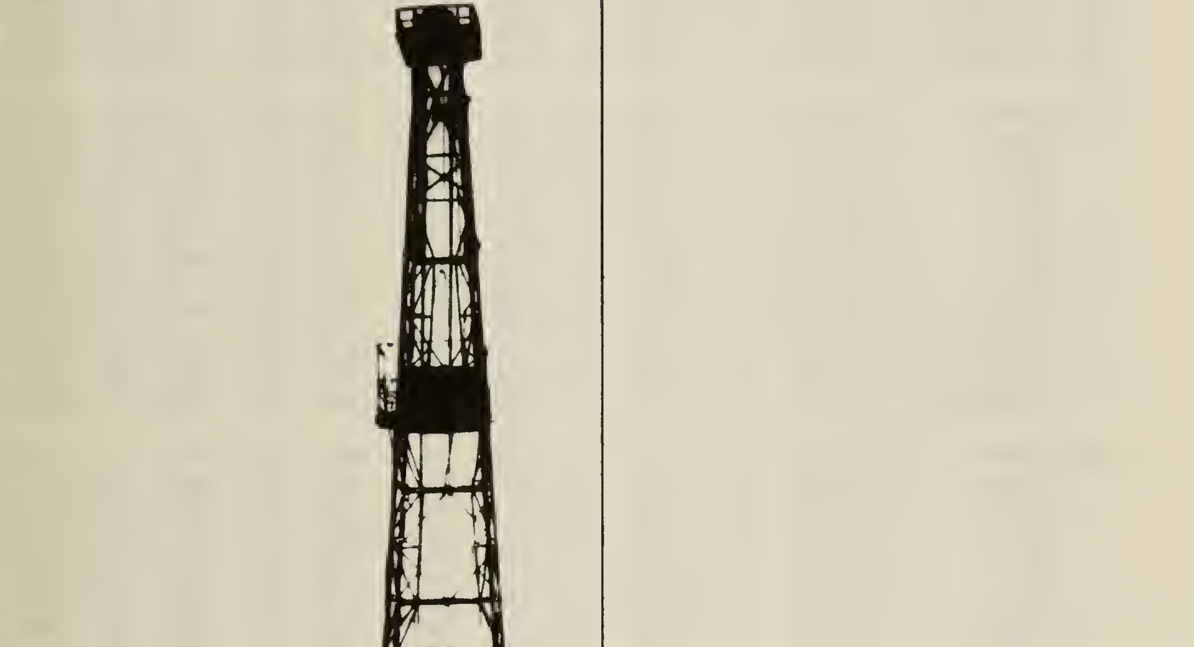
Commodity	1978	1983
Liquefied Petroleum Gases	19.8	73.4
Distillate Fuel Oil	3.3	64.1
Residual Fuel Oil	12.7	184.9
Petroleum Coke	110.8	194.8
Others	57.0	57.9
Total All Products	203.6	575.1

Source: Energy Information Administration, "Annual Petroleum Statement," 1978, and "Petroleum Supply Monthly," 1983.

It is likely that the overall growth in product exports will slow with a continuation of the current economic recovery, as domestic industrial demand for residual fuel oil and coke increases. However, further refinery investments to upgrade the quality of products refined from increasingly heavy crude oils will lower the costs of these less profitable by-products, permanently enhancing their competitive position in international markets.

Meanwhile, exports of crude oil continue to be restricted by Federal law. Certain exchanges, however, are permitted, and approximately 18,600 barrels per day were exchanged with Canada on a barrel-for-barrel basis during 1983. Another 146,000 barrels per day were shipped to U.S. Territories (namely, Puerto Rico and the Virgin Islands) for refining before subsequent consumption or re-export as finished product.

Summary Statistics



LIBRARY U. OF I. URBANA-CHAMPAIGN

Crude Oil[1] and Petroleum Products Overview

		Field Production			Stock Withdrawal[2]			Ending Stocks[3]
		Total Domestic[4]	Crude Oil	Natural Gas Plant Production	Crude Oil[5]	Petroleum Products	Petroleum Products Supplied	Crude Oil[5] and Petroleum Products
		Thousand Barrels per Day						Million Barrels
1973	**AVERAGE**	**10,975**	**9,208**	**1,738**	**11**	**-146**	**17,308**	**1,008**
1974	**AVERAGE**	**10,498**	**8,774**	**1,688**	**-62**	**-117**	**16,653**	[8] **1,074**
1975	**AVERAGE**	**10,045**	**8,375**	**1,633**	[8] **-17**	[8] **-145**	**16,322**	**1,133**
1976	**AVERAGE**	**9,774**	**8,132**	**1,603**	**-39**	**96**	**17,461**	**1,112**
1977	**AVERAGE**	**9,913**	**8,245**	**1,618**	**-170**	**-378**	**18,431**	**1,312**
1978	**AVERAGE**	**10,328**	**8,707**	**1,567**	**-78**	**172**	**18,847**	**1,278**
1979	**AVERAGE**	**10,179**	**8,552**	**1,584**	**-148**	**-25**	**18,513**	**1,341**
1980	**AVERAGE**	**10,214**	**8,597**	**1,573**	**-98**	**-42**	**17,056**	[8] **1,392**
1981	**AVERAGE**	**10,230**	**8,572**	**1,609**	[8] **-290**	[8] **130**	**16,058**	**1,484**
1982	January	10,128	8,509	1,578	-401	1,298	16,124	1,456
	February	10,312	8,702	1,563	-242	1,230	16,001	1,428
	March	10,284	8,667	1,572	121	1,047	15,560	1,392
	April	10,188	8,591	1,542	-37	1,583	16,046	1,346
	May	10,244	8,683	1,518	29	-66	14,847	1,347
	June	10,212	8,646	1,511	40	-489	14,998	1,360
	July	10,229	8,658	1,513	-147	-926	14,821	1,393
	August	10,215	8,634	1,524	-440	-44	14,839	1,408
	September	10,279	8,701	1,518	263	-447	15,022	1,414
	October	10,299	8,701	1,530	-548	-47	14,859	1,432
	November	10,359	8,697	1,609	-398	-361	15,009	1,455
	December	10,276	8,598	1,628	128	688	15,487	[8] 1,430
	AVERAGE	**10,252**	**8,649**	**1,550**	**-136**	**283**	**15,296**	
1983	January	10,356	8,634	1,668	-567	[8] 865	14,765	1,453
	February	10,298	8,660	1,585	-382	1,128	14,772	1,432
	March	10,259	8,677	1,544	56	1,765	15,484	1,375
	April	10,229	8,686	1,502	-438	431	14,779	1,376
	May	10,231	8,682	1,483	68	-759	14,250	1,397
	June	10,262	8,676	1,514	-163	-242	15,281	1,409
	July	10,237	8,647	1,536	118	-922	14,913	1,434
	August	10,257	8,653	1,561	-781	-289	15,366	1,467
	Sepptember	10,323	8,666	1,598	-191	-634	15,396	1,492
	October	10,317	8,654	1,604	-180	-456	14,947	1,512
	November	10,310	8,624	1,636	182	-128	15,533	1,510
	December	10,188	8,612	1,533	-306	2,150	16,691	1,453
	AVERAGE	**10,272**	**8,656**	**1,564**	**-215**	**239**	**15,184**	
1984	January	10,282	8,659	1,585	-342	1,085	16,726	1,430
	February*	10,410	8,726	1,629	R 186	R -1,353	R 15,389	R1,464
	March**	NA	8,718	NA	*85*	*218*	*15,549*	*1,433*
	AVERAGE	**NA**	**8,700**	**NA**	**-28**	**13**	**15,899**	

---

[1] Includes lease condensate.
[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[3] Stocks are totals as of end of period.
[4] Includes crude oil, natural gas plant production, other hydrocarbons, and alcohol.
[5] Includes stocks located in the Strategic Petroleum Reserve.
[6] Includes crude oil for storage in the Strategic Petroleum Reserve.
[7] Net Imports equal Imports minus Exports.
[8] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

Footnotes continued on following page.

Crude Oil[1] and Petroleum Products Overview (continued)

	Imports			Exports			
	Total	Crude Oil[6]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net[7] Imports
	Thousand Barrels per Day						
1973 AVERAGE	**6,256**	**3,244**	**3,012**	**231**	**2**	**229**	**6,025**
1974 AVERAGE	**6,112**	**3,477**	**2,635**	**221**	**3**	**218**	**5,892**
1975 AVERAGE	**6,056**	**4,105**	**1,951**	**209**	**6**	**204**	**5,846**
1976 AVERAGE	**7,313**	**5,287**	**2,026**	**223**	**8**	**215**	**7,090**
1977 AVERAGE	**8,807**	**6,615**	**2,193**	**243**	**50**	**193**	**8,565**
1978 AVERAGE	**8,363**	**6,356**	**2,008**	**362**	**158**	**204**	**8,002**
1979 AVERAGE	**8,456**	**6,519**	**1,937**	**472**	**235**	**237**	**7,984**
1980 AVERAGE	**6,909**	**5,263**	**1,646**	**544**	**287**	**258**	**6,365**
1981 AVERAGE	**5,996**	**4,396**	**1,599**	**595**	**228**	**367**	**5,401**
1982 January	5,332	3,693	1,639	829	238	591	4,503
February	4,807	2,990	1,817	804	304	499	4,003
March	4,484	2,874	1,610	882	321	561	3,602
April	4,378	2,849	1,529	786	174	611	3,593
May	4,811	3,309	1,503	803	262	542	4,008
June	5,327	3,836	1,491	703	94	609	4,624
July	5,890	4,248	1,642	741	229	512	5,149
August	5,244	3,851	1,392	858	304	554	4,386
September	5,414	3,636	1,778	791	184	606	4,624
October	5,306	3,670	1,636	932	270	662	4,374
November	5,744	3,862	1,882	786	262	524	4,958
December	4,606	3,000	1,605	860	193	667	3,746
AVERAGE	**5,113**	**3,488**	**1,625**	**815**	**236**	**579**	**4,298**
1983 January	4,372	2,938	1,434	973	117	856	3,399
February	3,691	2,268	1,423	865	262	603	2,825
March	3,629	2,232	1,398	801	174	627	2,829
April	4,744	3,154	1,590	809	88	721	3,935
May	4,898	3,234	1,664	848	280	568	4,049
June	5,218	3,502	1,716	774	144	630	4,443
July	5,690	3,868	1,822	571	145	426	5,119
August	6,036	4,174	1,863	663	172	491	5,373
Sepptember	6,088	4,221	1,867	684	177	507	5,403
October	5,256	3,446	1,810	576	140	436	4,680
November	5,168	3,312	1,856	679	186	494	4,489
December	4,986	3,214	1,772	639	95	544	4,348
AVERAGE	**4,988**	**3,303**	**1,686**	**739**	**164**	**575**	**4,249**
1984 January	5,347	3,029	2,318	575	153	422	4,772
February*	R 5,643	R 2,952	R 2,691	582	185	397	5,061
March**	*5,145*	*3,576*	*1,570*	NA	NA	NA	NA
AVERAGE	**5,373**	**3,191**	**2,182**	**NA**	**NA**	**NA**	**NA**

Footnotes continued.

* See Explanatory Note 9.1.

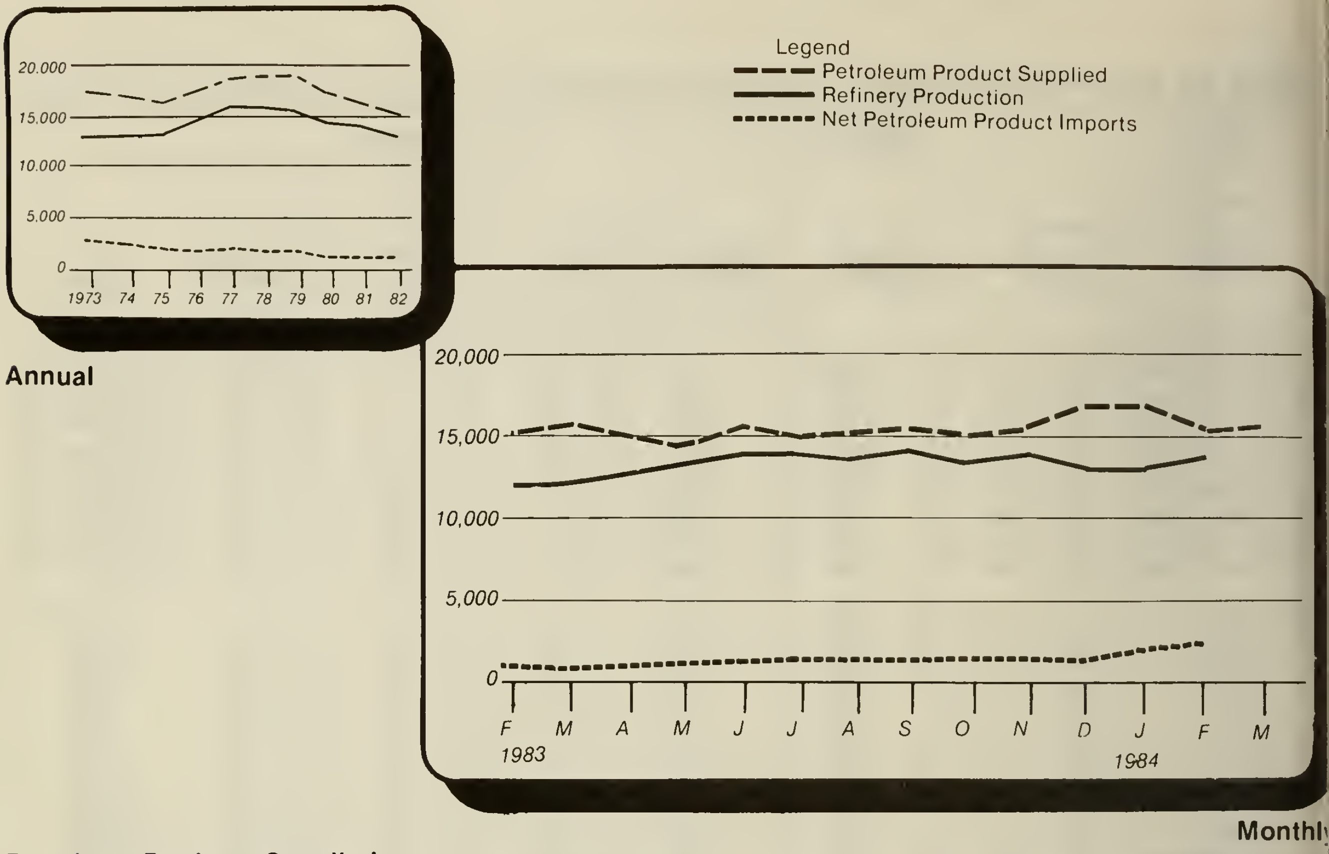
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available.

Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.

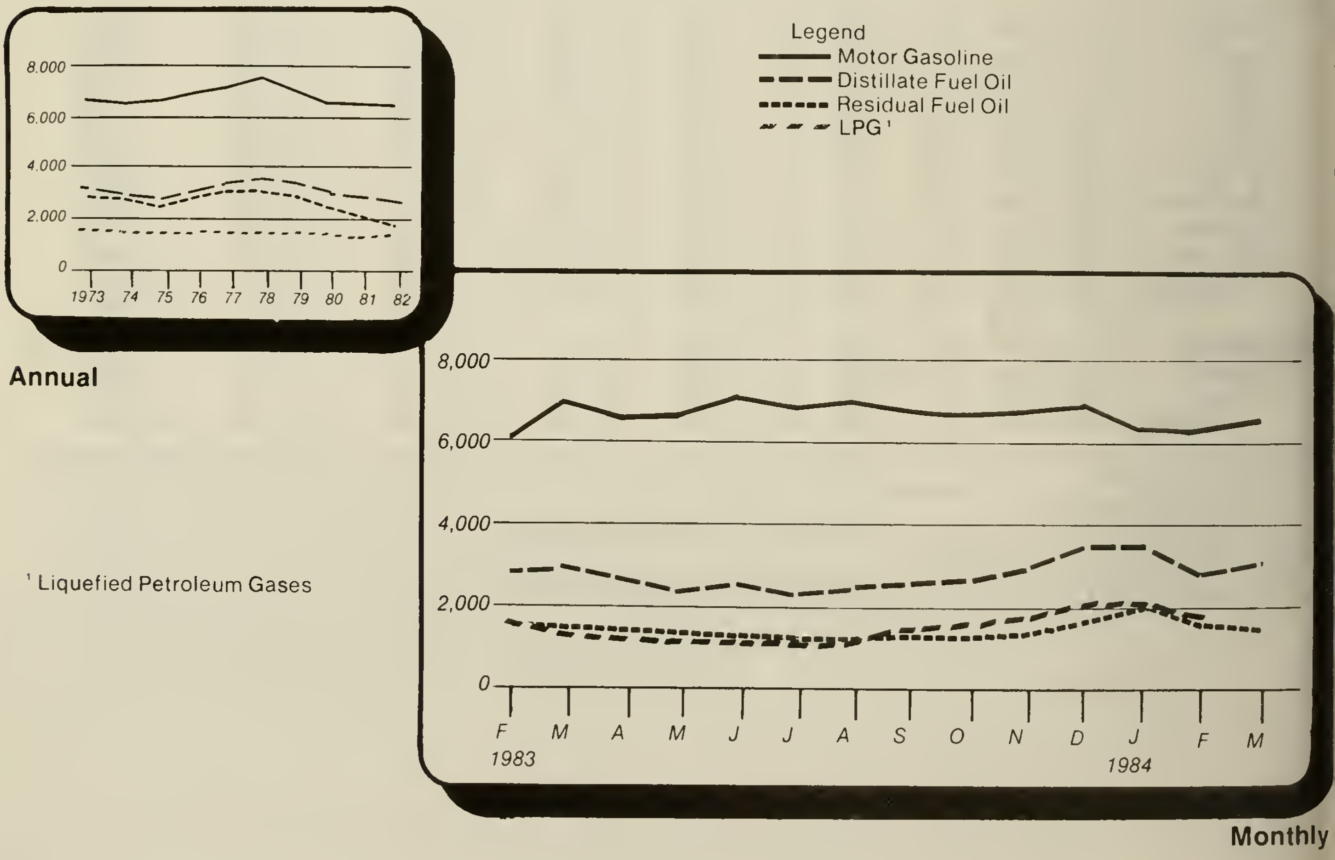
Petroleum Overview

(Thousand Barrels Per Day)



Petroleum Products Supplied

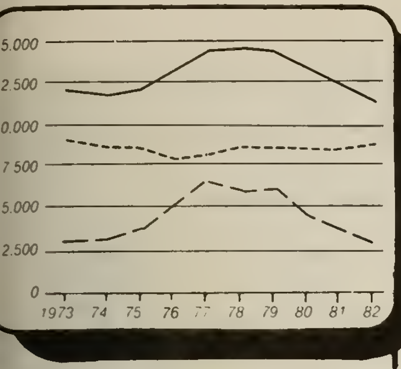
(Thousand Barrels Per Day)



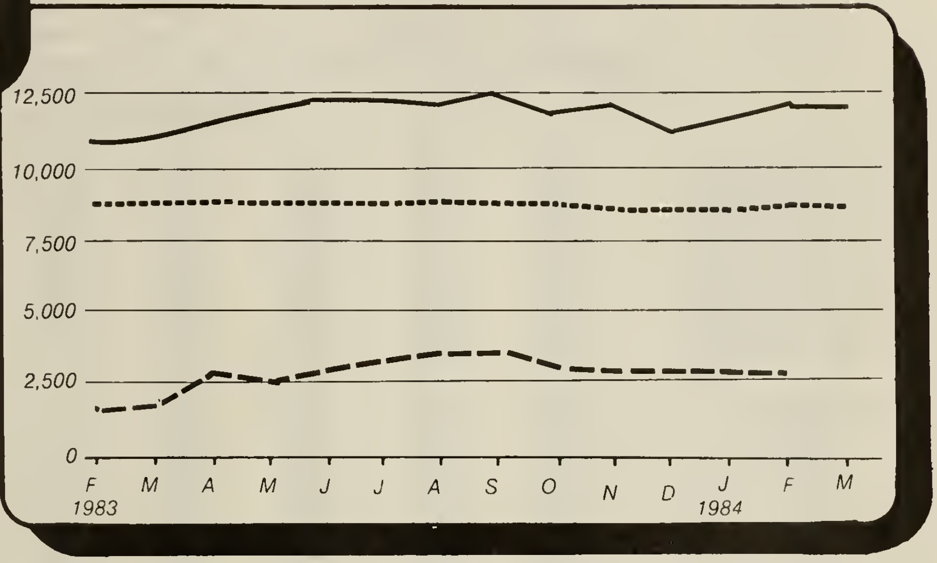
[1] Liquefied Petroleum Gases

rude Oil Supply and Disposition

Thousand Barrels Per Day)



nnual

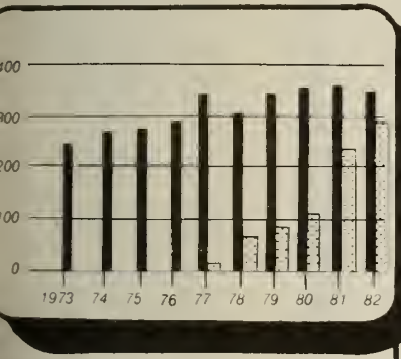


Monthly

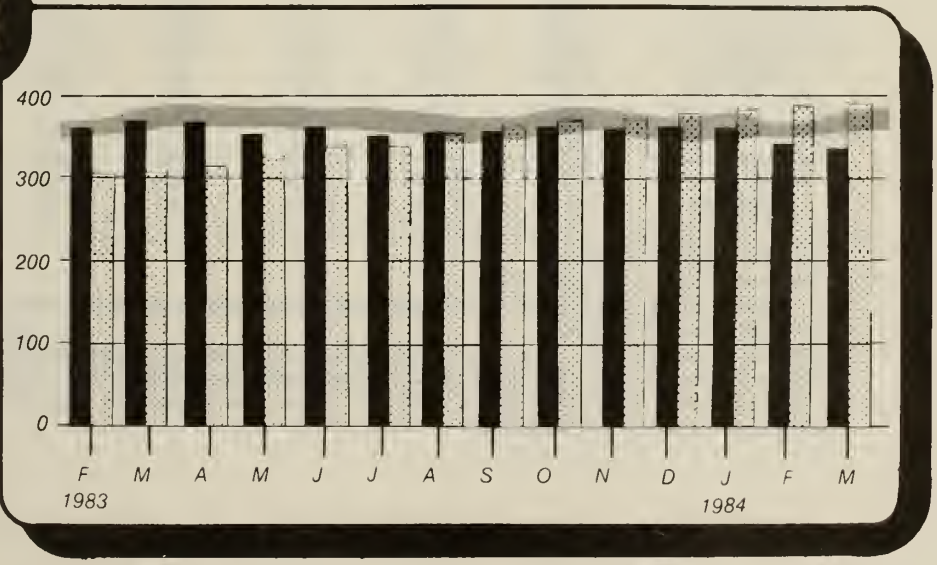
xcludes SPR Imports

rude Oil Ending Stocks

Million Barrels)



nnual



Monthly

evel and width of Average Stock anges for other primary crude oil is ased on 3 years of data. July 80-July 3 See Explanatory Note 6

LIBRARY U. OF I. URBANA-CHAMPAIGN

Crude Oil[1] Supply and Disposition

	Supply							
	Field Production		Imports			Stock Withdrawal[3]		
	Total Domestic	Alaskan	Total	SPR[4]	Other	SPR[4]	Other	Unaccounted for Crude Oil
	Thousand Barrels per Day							
1973 AVERAGE	**9,208**	**198**	**3,244**		**3,244**		**11**	**3**
1974 AVERAGE	**8,774**	**193**	**3,477**		**3,477**		**-62**	**-25**
1975 AVERAGE	**8,375**	**191**	**4,105**		**4,105**		**-17**	**17**
1976 AVERAGE	**8,132**	**173**	**5,287**		**5,287**		**-39**	**77**
1977 AVERAGE	**8,245**	**464**	**6,615**	**21**	**6,594**	**-20**	**-150**	**-6**
1978 AVERAGE	**8,707**	**1,229**	**6,356**	**162**	**6,195**	**-163**	**84**	**-57**
1979 AVERAGE	**8,552**	**1,401**	**6,519**	**67**	**6,452**	**-67**	**-81**	**-11**
1980 AVERAGE	**8,597**	**1,617**	**5,263**	**44**	**5,219**	**-45**	**-52**	**34**
1981 AVERAGE	**8,572**	**1,609**	**4,396**	**256**	**4,141**	**-336**	[6] **46**	**83**
1982 January	8,509	1,705	3,693	170	3,523	-159	-242	101
February	8,702	1,707	2,990	159	2,830	-213	-29	156
March	8,667	1,696	2,874	185	2,689	-235	357	2
April	8,591	1,691	2,849	190	2,659	-233	196	231
May	8,683	1,707	3,309	204	3,105	-176	205	111
June	8,646	1,665	3,836	105	3,732	-105	144	133
July	8,658	1,710	4,248	97	4,150	-97	-50	-20
August	8,634	1,697	3,851	208	3,643	-208	-232	189
September	8,701	1,705	3,636	139	3,497	-143	406	-210
October	8,701	1,706	3,670	216	3,454	-216	-332	249
November	8,697	1,676	3,862	180	3,683	-179	-219	-124
December	8,598	1,682	3,000	124	2,877	-125	252	35
AVERAGE	**8,649**	**1,696**	**3,488**	**165**	**3,323**	**-174**	**38**	**71**
1983 January	8,634	1,698	2,938	219	2,720	-219	-348	238
February	8,660	1,725	2,268	197	2,071	-197	-185	423
March	8,677	1,726	2,232	201	2,031	-184	240	134
April	8,686	1,710	3,154	205	2,949	-197	-241	191
May	8,682	1,710	3,234	289	2,945	-293	362	148
June	8,676	1,710	3,502	190	3,312	-188	25	480
July	8,647	1,705	3,868	274	3,594	-264	382	-74
August	8,653	1,712	4,174	350	3,823	-358	-423	333
September	8,666	1,722	4,221	309	3,912	-307	116	-6
October	8,654	1,731	3,446	202	3,244	-201	21	69
November	8,624	1,713	3,312	171	3,141	-135	317	137
December	8,612	1,713	3,214	193	3,021	-252	-55	-141
AVERAGE	**8,656**	**1,715**	**3,303**	**234**	**3,069**	**-234**	**19**	**159**
1984 January	8,659	1,741	3,029	200	2,829	-173	-169	451
February*	8,726	1,740	R 2,952	R 85	R 2,868	R -96	R 282	487
March**	8,718	1,740	*3,576*	*172*	*3,404*	*-149*	*234*	NA
AVERAGE	**8,700**	**1,740**	**3,191**	**154**	**3,037**	**-140**	**112**	**NA**

---

[1] Includes lease condensate.
[2] Stocks are totals as of end of period.
[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[4] Strategic Petroleum Reserve.
[5] Begining in January 1983, crude oil used directly as fuel is shown as product supplied.
[6] Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels. See Explanatory Note 11.

Footnotes continued on following page.

Crude Oil[1] Supply and Disposition (continued)

		Supply	Disposition				Ending Stocks[2]		
		Crude Used Directly[5]	Crude Losses	Refinery Inputs	Exports	Products Supplied[5]	Total Crude Oil	SPR[4]	Other Primary
		Thousand Barrels per Day					Million Barrels		
1973	**AVERAGE**	**-19**	**13**	**12,431**	**2**	**NA**	**242**		**242**
1974	**AVERAGE**	**-15**	**13**	**12,133**	**3**	**NA**	**265**		**265**
1975	**AVERAGE**	**-17**	**13**	**12,442**	**6**	**NA**	**271**		**271**
1976	**AVERAGE**	**-18**	**15**	**13,416**	**8**	**NA**	**285**		**285**
1977	**AVERAGE**	**-14**	**16**	**14,602**	**50**	**NA**	**348**	**7**	**340**
1978	**AVERAGE**	**-14**	**16**	**14,739**	**158**	**NA**	**376**	**67**	**309**
1979	**AVERAGE**	**-13**	**16**	**14,648**	**235**	**NA**	**430**	**91**	**339**
1980	**AVERAGE**	**-13**	**15**	**13,481**	**287**	**NA**	[6] **466**	**108**	[6] **358**
1981	**AVERAGE**	**-58**	**5**	**12,470**	**228**	**NA**	**594**	**230**	**363**
1982	January	-63	3	11,599	238	NA	606	235	371
	February	-64	2	11,236	304	NA	613	241	372
	March	-63	5	11,276	321	NA	609	249	361
	April	-65	3	11,392	174	NA	610	256	355
	May	-62	3	11,806	262	NA	609	261	348
	June	-60	7	12,494	94	NA	608	264	344
	July	-60	3	12,446	229	NA	613	267	346
	August	-57	2	11,871	304	NA	626	274	353
	September	-56	4	12,146	184	NA	619	278	341
	October	-51	2	11,749	270	NA	636	285	351
	November	-51	1	11,724	262	NA	648	290	358
	December	-53	1	11,514	193	NA	644	294	350
	AVERAGE	**-59**	**3**	**11,774**	**236**	**NA**			
1983	January	NA	2	11,070	117	54	661	301	361
	February	NA	3	10,635	262	69	672	306	366
	March	NA	2	10,854	174	70	670	312	359
	April	NA	2	11,436	88	68	684	318	366
	May	NA	1	11,789	280	63	681	327	355
	June	NA	1	12,287	144	64	686	332	354
	July	NA	2	12,347	145	65	683	341	342
	August	NA	1	12,141	172	64	707	352	355
	September	NA	1	12,445	177	66	713	361	352
	October	NA	1	11,784	140	63	718	367	351
	November	NA	2	12,003	186	64	713	371	341
	December	NA	1	11,217	95	67	722	379	343
	AVERAGE	**NA**	**1**	**11,672**	**164**	**65**			
1984	January	NA	1	11,579	153	64	733	384	348
	February*	NA	1	R 12,100	185	65	727	387	340
	March**	NA	NA	*12,006*	NA	NA	*724*	*392*	*332*
	AVERAGE	**NA**	**NA**	**11,891**	**NA**	**NA**			

Footnotes continued.
* See Explanatory Note 9.2.
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.
R = Revised data. NA = Not available.
Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.
Source: See the last page of this section.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Crude Oil and Petroleum Product Imports

	Imports from OPEC Sources[1]										
	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indo-nesia	Iran	Nigeria	Vene-zuela	Other OPEC[2]	Total OPEC	Total Arab OPEC[3]
	Thousand Barrels per Day										
1973 **AVERAGE**	136	164	486	71	213	223	459	1,135	106	2,993	915
1974 **AVERAGE**	190	4	461	74	300	469	713	979	88	3,280	752
1975 **AVERAGE**	282	232	715	117	390	280	762	702	122	3,601	1,383
1976 **AVERAGE**	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424
1977 **AVERAGE**	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185
1978 **AVERAGE**	649	654	1,144	385	573	555	919	645	226	5,751	2,963
1979 **AVERAGE**	636	658	1,356	281	420	304	1,080	690	212	5,637	3,056
1980 **AVERAGE**	488	554	1,261	172	348	9	857	481	130	4,300	2,551
1981 **AVERAGE**	311	319	1,129	81	366	0	620	406	90	3,323	1,848
1982 January	254	161	877	111	289	0	663	376	128	2,859	1,403
February	139	92	693	89	244	0	584	355	102	2,297	1,054
March	91	37	555	155	200	0	522	399	91	2,051	860
April	85	0	511	122	215	0	427	426	85	1,871	740
May	179	0	601	116	236	0	222	422	54	1,830	897
June	115	0	593	94	215	72	537	361	110	2,096	820
July	159	0	660	108	327	69	910	356	95	2,685	965
August	181	0	489	133	271	27	574	299	133	2,107	818
September	179	0	432	57	191	21	477	518	69	1,943	677
October	249	7	494	61	242	108	313	504	106	2,084	810
November	247	14	489	47	283	34	479	528	115	2,235	797
December	155	0	237	12	265	88	462	399	73	1,690	421
AVERAGE	170	26	552	92	248	35	514	412	97	2,146	854
1983 January	204	0	282	47	255	43	186	324	43	1,384	533
February	104	0	214	9	217	0	92	371	28	1,035	326
March	63	0	103	0	138	0	121	425	173	1,023	183
April	228	0	180	(s)	210	0	186	508	125	1,438	409
May	284	0	122	12	324	37	352	444	69	1,645	419
June	300	0	175	40	502	38	402	335	146	1,938	515
July	282	0	182	58	464	112	525	431	187	2,240	599
August	370	0	426	45	416	213	464	477	230	2,641	866
September	413	0	587	21	516	86	324	472	208	2,627	1,074
October	261	0	638	16	368	12	307	337	169	2,108	938
November	165	0	545	56	318	21	214	435	135	1,891	789
December	141	0	569	45	291	9	329	408	163	1,957	823
AVERAGE	235	0	336	29	335	48	294	414	140	1,832	625
1984 January	242	0	463	114	278	0	243	547	51	1,939	828
February	348	0	324	33	267	0	244	481	174	1,871	723
AVERAGE	293	0	396	75	272	0	243	515	111	1,906	777

---

[1] Excludes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

[2] Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

[3] Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

Footnotes continued on following page.

Crude Oil and Petroleum Product Imports (continued)

	Imports from Non-OPEC Sources [4]										
	Baha- mas	Canada	Mexico	Nether- lands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non OPEC	Total Non OPEC	Total Imports
	Thousand Barrels per Day										
1973 AVERAGE	**174**	**1,325**	**16**	**585**	**255**	**15**	**99**	**329**	**465**	**3,263**	**6,256**
1974 AVERAGE	**164**	**1,070**	**8**	**511**	**251**	**8**	**90**	**391**	**340**	**2,832**	**6,112**
1975 AVERAGE	**152**	**846**	**71**	**332**	**242**	**14**	**90**	**406**	**300**	**2,454**	**6,056**
1976 AVERAGE	**118**	**599**	**87**	**275**	**274**	**31**	**88**	**422**	**353**	**2,247**	**7,313**
1977 AVERAGE	**171**	**517**	**179**	**211**	**289**	**126**	**105**	**466**	**550**	**2,614**	**8,807**
1978 AVERAGE	**160**	**467**	**318**	**229**	**253**	**180**	**94**	**429**	**484**	**2,613**	**8,363**
1979 AVERAGE	**147**	**538**	**439**	**231**	**190**	**202**	**92**	**431**	**548**	**2,819**	**8,456**
1980 AVERAGE	**78**	**455**	**533**	**225**	**176**	**176**	**88**	**388**	**491**	**2,609**	**6,909**
1981 AVERAGE	**74**	**447**	**522**	**197**	**133**	**375**	**62**	**327**	**534**	**2,672**	**5,996**
1982 January	58	513	425	179	106	346	62	334	452	2,474	5,332
February	67	537	476	221	120	181	38	362	508	2,510	4,807
March	43	437	503	189	118	294	62	307	480	2,433	4,484
April	82	360	476	184	166	247	36	266	690	2,507	4,378
May	77	419	766	152	95	516	47	302	607	2,981	4,811
June	32	481	797	148	129	557	58	322	708	3,231	5,327
July	64	536	783	158	118	433	38	376	698	3,204	5,890
August	80	443	853	145	106	520	24	317	650	3,137	5,244
September	92	493	897	195	89	631	51	278	746	3,472	5,414
October	45	459	682	148	109	666	52	262	801	3,222	5,306
November	51	553	860	212	90	623	81	334	706	3,508	5,744
December	88	561	689	174	102	438	48	336	480	2,916	4,606
AVERAGE	**65**	**482**	**685**	**175**	**112**	**456**	**50**	**316**	**627**	**2,968**	**5,113**
1983 January	68	536	849	218	73	315	40	299	588	2,988	4,372
February	92	592	722	179	81	193	50	192	554	2,655	3,691
March	86	488	760	187	78	240	43	162	563	2,606	3,629
April	167	452	981	216	85	421	20	183	781	3,306	4,744
May	135	501	944	153	108	483	42	235	651	3,252	4,898
June	137	576	831	181	120	424	48	252	712	3,281	5,218
July	69	633	849	191	103	369	37	364	836	3,450	5,690
August	142	540	891	194	90	461	40	313	725	3,395	6,036
September	137	523	832	251	82	472	33	308	822	3,461	6,088
October	164	539	771	172	106	414	48	370	565	3,149	5,256
November	143	542	717	144	110	334	55	440	793	3,278	5,168
December	119	592	718	153	113	429	22	271	613	3,030	4,986
AVERAGE	**122**	**542**	**822**	**187**	**96**	**381**	**40**	**283**	**684**	**3,156**	**4,988**
1984 January	152	624	705	277	54	382	53	390	772	3,408	5,347
February	142	620	747	288	77	338	58	418	1,083	3,772	5,643
AVERAGE	**147**	**622**	**725**	**282**	**65**	**361**	**56**	**403**	**922**	**3,584**	**5,490**

Footnotes continued.

[4] Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

(s) = Less than 500 barrels per day.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

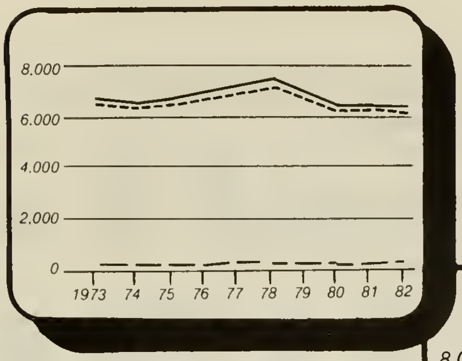
Total may not equal sum of components due to independent rounding.

Geographic coverage: The 50 United States and the District of Columbia.

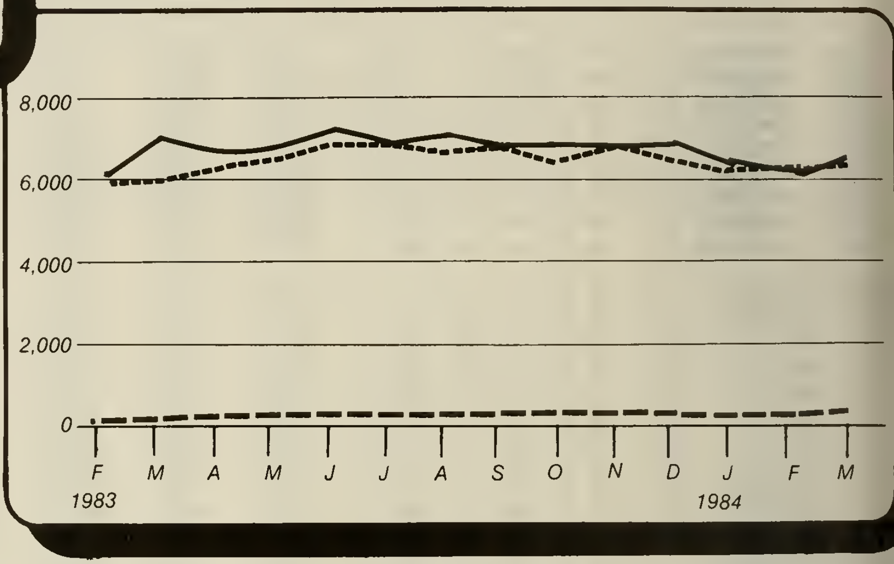
Source: See the last page of this section.

Motor Gasoline Supply and Disposition

(Thousand Barrels Per Day)



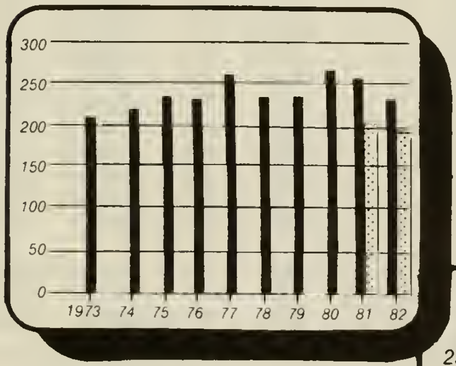
Annual



Month

Motor Gasoline Ending Stocks

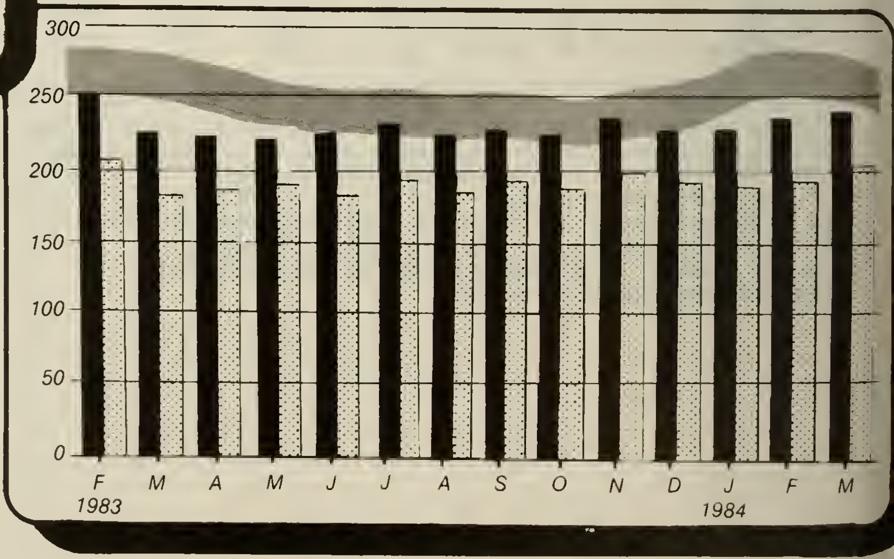
(Million Barrels)



Annual

[1] Includes motor gasoline blending components

[2] Level and width of Average Stock Range for total motor gasoline based on 3 years of data. July 80-June 83. See Explanatory Note 6.



Mont

inished Motor Gasoline Supply and Disposition

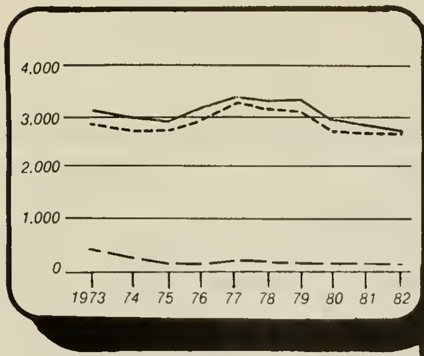
	Supply			Disposition				Ending Stocks[1]	
					Products Supplied				
	Total Production	Imports[2]	Stock Withdrawal[2] [3]	Exports	Total	Unleaded[4]	Unleaded	Total Motor Gasoline[5]	Finished Motor Gasoline
	Thousand Barrels per Day						Percent of Total	Million Barrels	
73 AVERAGE	**6,535**	**134**	**9**	**4**	**6,674**	**NA**	**NA**	**209**	
74 AVERAGE	**6,360**	**204**	**-24**	**2**	**6,537**	**NA**	**NA**	**[6] 218**	
75 AVERAGE	**6,520**	**184**	**[6] -28**	**2**	**6,675**	**NA**	**NA**	**235**	
76 AVERAGE	**6,841**	**131**	**10**	**3**	**6,978**	**NA**	**NA**	**231**	
77 AVERAGE	**7,033**	**217**	**-72**	**2**	**7,177**	**1,976**	**27.5**	**258**	
78 AVERAGE	**7,169**	**190**	**54**	**1**	**7,412**	**2,521**	**34.0**	**238**	
79 AVERAGE	**6,852**	**181**	**2**	**(s)**	**7,034**	**2,798**	**39.8**	**237**	
80 AVERAGE	**6,506**	**140**	**-66**	**1**	**6,579**	**3,067**	**46.6**	**[6] 261**	
81 AVERAGE[7]	**6,405**	**157**	**[6] 28**	**2**	**6,588**	**3,264**	**49.5**	**253**	
82 January	6,167	128	-316	18	5,961	3,067	51.5	261	213
February	5,899	133	172	8	6,196	3,210	51.8	257	208
March	5,994	183	334	44	6,466	3,358	51.9	247	198
April	6,095	185	650	33	6,897	3,495	50.7	221	179
May	6,319	182	177	23	6,655	3,415	51.3	214	173
June	6,754	230	-134	14	6,835	3,565	52.2	219	177
July	6,768	225	-178	24	6,790	3,577	52.7	226	183
August	6,419	291	-81	16	6,614	3,526	53.3	227	185
September	6,527	223	-198	22	6,531	3,404	52.1	234	191
October	6,262	185	-42	15	6,391	3,351	52.4	234	192
November	6,273	211	101	11	6,574	3,451	52.5	230	189
December	6,542	178	-165	7	6,549	3,485	53.2	[6] 235	[6] 194
AVERAGE	**6,338**	**197**	**25**	**20**	**6,539**	**3,409**	**52.1**		
83 January	6,020	148	[6] -186	(s)	5,981	3,352	56.0	251	208
February	5,848	142	32	(s)	6,022	3,257	54.1	251	207
March	5,897	205	765	23	6,843	3,620	52.9	224	184
April	6,202	273	27	1	6,501	3,505	53.9	221	183
May	6,386	284	-128	1	6,540	3,547	54.2	225	187
June	6,646	265	118	22	7,008	3,796	54.2	223	183
July	6,704	297	-210	18	6,773	3,752	55.4	231	190
August	6,539	260	159	13	6,946	3,836	55.2	226	185
September	6,582	285	-160	14	6,693	3,671	54.8	230	190
October	6,188	335	60	2	6,581	3,698	56.2	228	188
November	6,636	269	-274	2	6,629	3,714	56.0	236	196
December	6,314	217	340	25	6,846	3,967	57.9	222	185
AVERAGE	**6,332**	**249**	**47**	**10**	**6,617**	**3,646**	**55.1**		
84 January	6,037	233	-1	1	6,268	3,606	57.5	225	186
February*	R 6,320	R 303	R -384	2	R 6,237	3,585	57.5	R 237	R 197
March**	*6,374*	*365*	*-253*	NA	*6,473*	NA	NA	*242*	*202*
AVERAGE	**6,242**	**300**	**-209**	**NA**	**6,328**	**NA**	**NA**		

---

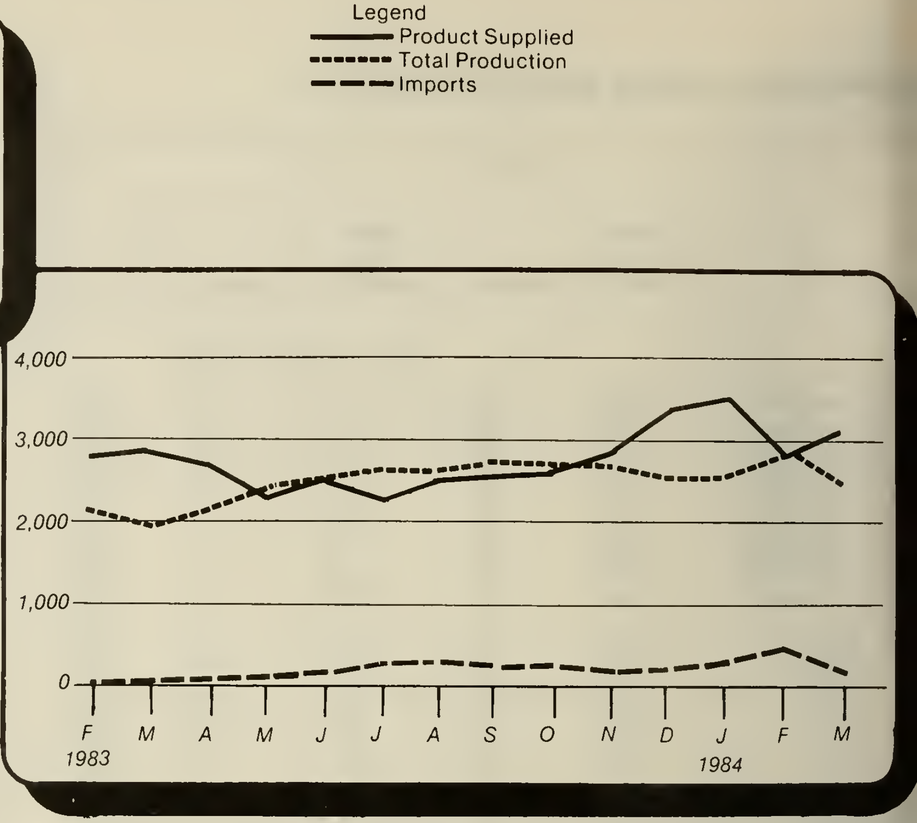
[1] Stocks are totals as of end of period.
[2] Beginning in 1981, excludes blending components.
[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[4] Includes gasohol.
[5] Includes motor gasoline blending components.
[6] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.
[7] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.
* See Explanatory Note 9.3.
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.
R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.
Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Distillate Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



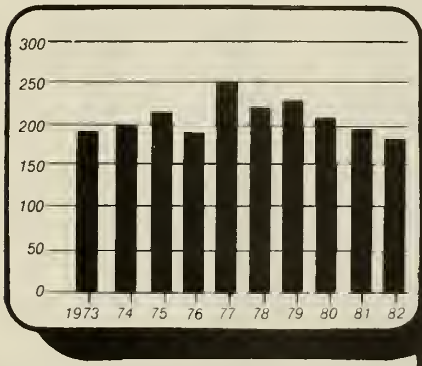
Annual



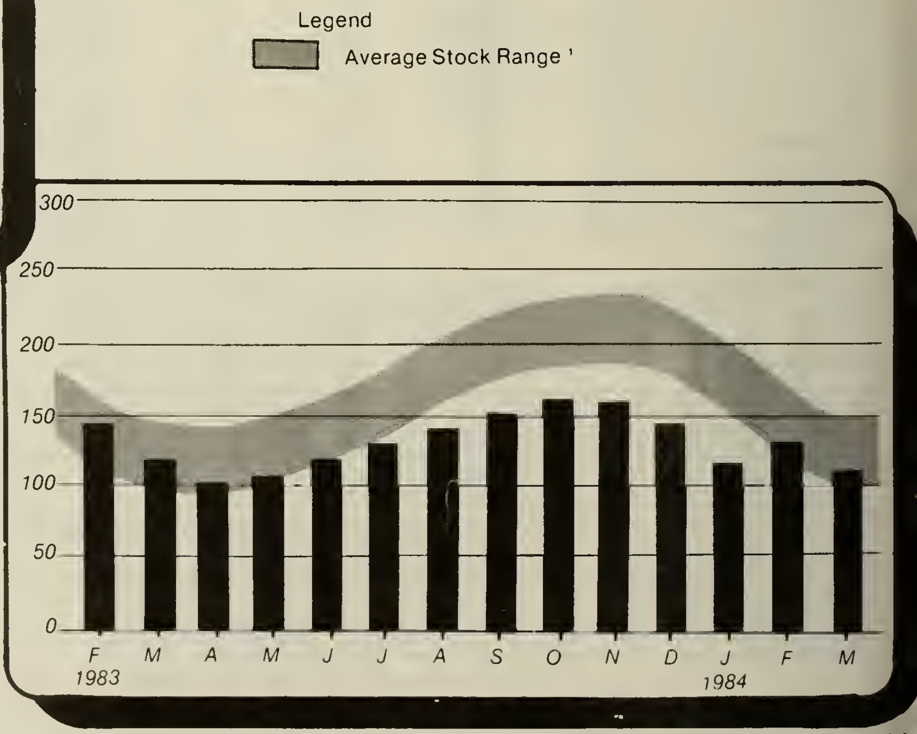
Monthly

Distillate Fuel Oil Ending Stocks

(Million Barrels)



Annual



Monthly

[1] Level and width of Average Stock Range for distillate fuel oil is based on 3 years of data, July 80-July 83. See Explanatory Note 6.

Distillate Fuel Oil Supply and Disposition

	Supply				Disposition		Ending Stocks[1]
	Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Products Supplied[3]	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**2,822**	**392**	**-115**	**2**	**9**	**3,092**	**196**
1974 AVERAGE	**2,669**	**289**	**-9**	**2**	**2**	**2,948**	**[4] 200**
1975 AVERAGE	**2,654**	**155**	**[4] 40**	**2**	**1**	**2,851**	**209**
1976 AVERAGE	**2,924**	**146**	**62**	**1**	**1**	**3,133**	**186**
1977 AVERAGE	**3,278**	**250**	**-176**	**1**	**1**	**3,352**	**250**
1978 AVERAGE	**3,167**	**173**	**93**	**1**	**3**	**3,432**	**216**
1979 AVERAGE	**3,153**	**193**	**-34**	**1**	**3**	**3,311**	**229**
1980 AVERAGE	**2,662**	**142**	**64**	**1**	**3**	**2,866**	**[4] 205**
1981 AVERAGE[5]	**2,613**	**173**	**[4] 38**	**10**	**5**	**2,829**	**192**
1982 January	2,591	97	876	10	90	3,484	164
February	2,427	132	605	11	90	3,085	147
March	2,288	48	682	10	84	2,945	126
April	2,358	59	612	13	64	2,978	108
May	2,618	74	-183	10	75	2,444	114
June	2,729	102	-335	10	55	2,452	124
July	2,734	125	-789	11	24	2,058	148
August	2,507	80	-339	10	40	2,218	159
September	2,657	61	-85	12	139	2,507	161
October	2,838	91	-289	8	66	2,581	170
November	2,860	145	-514	8	24	2,475	186
December	2,655	109	225	10	143	2,855	**[4] 179**
AVERAGE	**2,606**	**93**	**35**	**10**	**74**	**2,671**	
1983 January	2,314	58	**[4] 561**	NA	173	2,760	168
February	2,136	58	742	NA	105	2,832	147
March	1,991	42	926	NA	59	2,900	119
April	2,169	73	518	NA	47	2,713	103
May	2,444	141	-193	NA	50	2,341	109
June	2,545	175	-154	NA	40	2,526	114
July	2,600	259	-556	NA	55	2,248	131
August	2,612	302	-403	NA	43	2,467	144
September	2,725	253	-374	NA	37	2,568	155
October	2,682	255	-275	NA	55	2,606	163
November	2,679	189	65	NA	54	2,879	161
December	2,524	212	675	NA	54	3,358	140
AVERAGE	**2,454**	**169**	**124**	**NA**	**64**	**2,682**	
1984 January	2,585	270	676	NA	40	3,490	119
February*	R 2,864	R 458	R -439	NA	41	R 2,842	R 132
March**	*2,436*	*117*	*573*	NA	NA	*3,078*	*113*
AVERAGE	**2,623**	**278**	**285**	**NA**	**NA**	**3,143**	

[1] Stocks are totals as of end of period.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] Beginning in January 1984, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 4.

[4] In January 1975, 1981, and 1984, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

[5] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

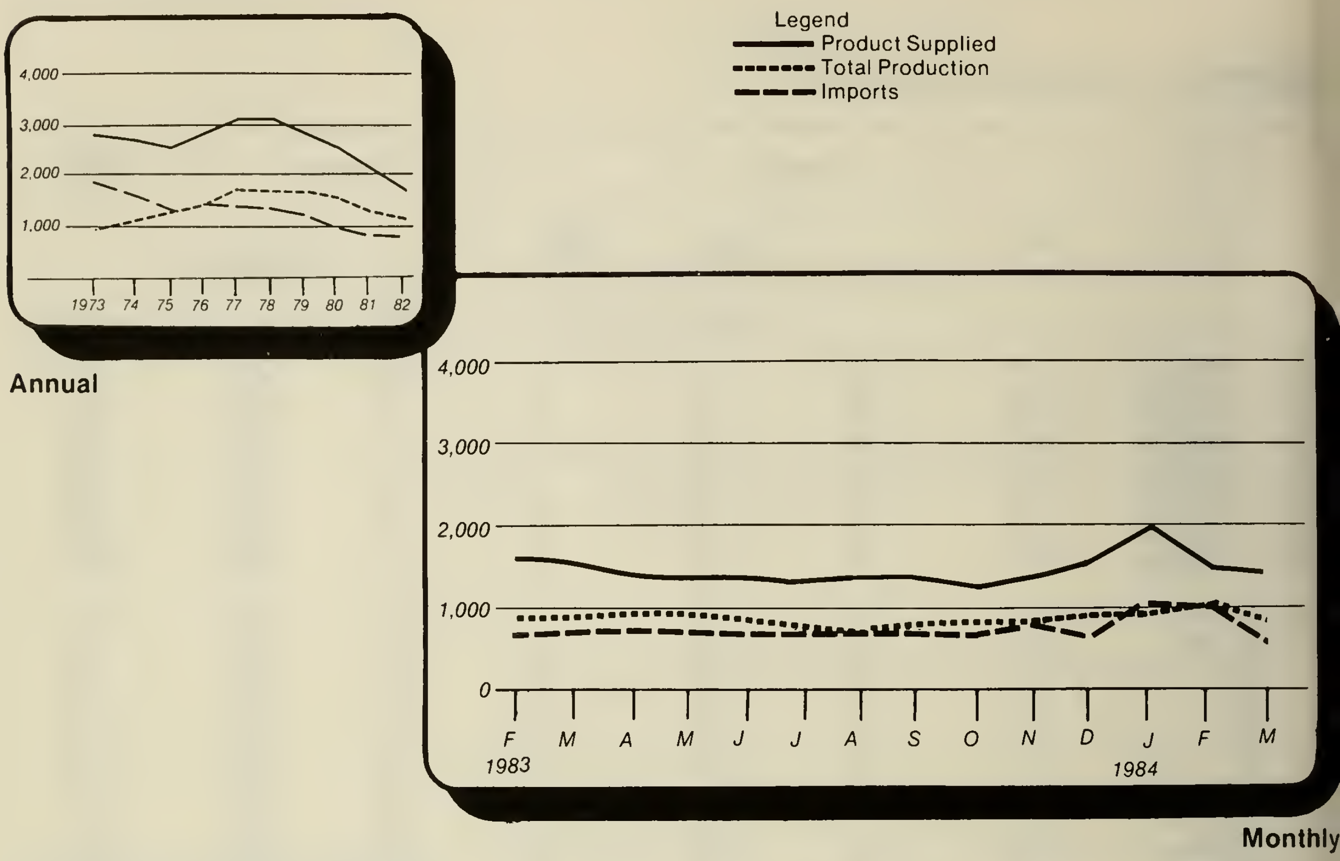
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

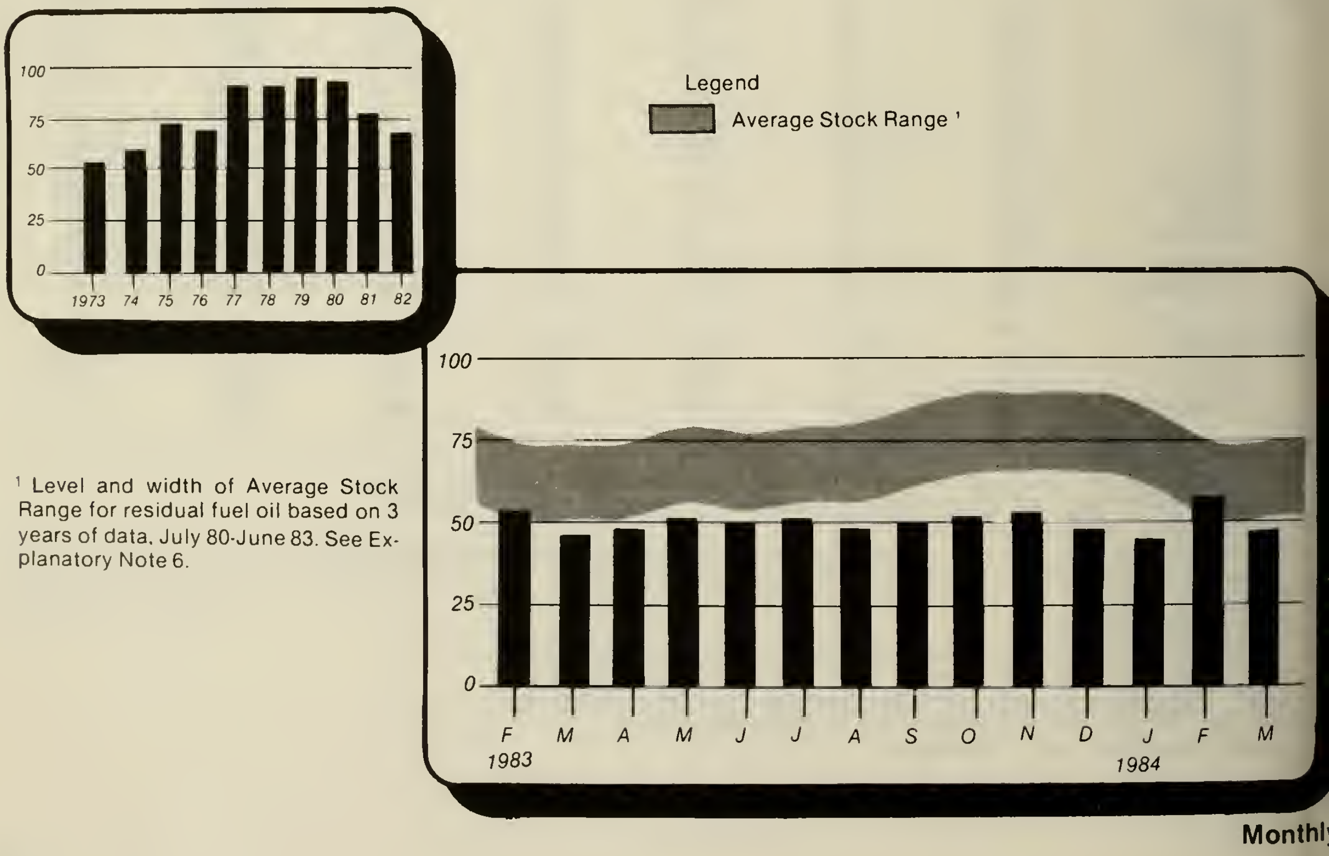
Residual Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



Residual Fuel Oil Ending Stocks

(Million Barrels)



[1] Level and width of Average Stock Range for residual fuel oil based on 3 years of data, July 80-June 83. See Explanatory Note 6.

Residual Fuel Oil Supply and Disposition

	Supply				Disposition		Ending Stocks[1]
	Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Products Supplied[3]	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**971**	**1,853**	**5**	**17**	**23**	**2,822**	**53**
1974 AVERAGE	**1,070**	**1,587**	**-17**	**13**	**14**	**2,639**	**[4] 60**
1975 AVERAGE	**1,235**	**1,223**	**[4] 2**	**15**	**15**	**2,462**	**74**
1976 AVERAGE	**1,377**	**1,413**	**5**	**17**	**12**	**2,801**	**72**
1977 AVERAGE	**1,754**	**1,359**	**-48**	**13**	**6**	**3,071**	**90**
1978 AVERAGE	**1,667**	**1,355**	**-1**	**13**	**13**	**3,023**	**90**
1979 AVERAGE	**1,687**	**1,151**	**-15**	**12**	**9**	**2,826**	**96**
1980 AVERAGE	**1,580**	**939**	**10**	**12**	**33**	**2,508**	**[4] 92**
1981 AVERAGE[5]	**1,321**	**800**	**[4] 37**	**48**	**118**	**2,088**	**78**
1982 January	1,235	831	301	53	235	2,185	69
February	1,186	956	363	53	213	2,344	58
March	1,123	912	12	53	197	1,903	58
April	1,166	788	150	52	234	1,923	54
May	1,128	742	-172	52	191	1,560	59
June	1,074	652	-57	50	217	1,501	61
July	1,028	657	56	49	239	1,550	59
August	965	551	203	47	235	1,531	53
September	1,008	872	-306	44	148	1,470	62
October	955	783	-57	43	234	1,490	64
November	989	837	-94	43	182	1,591	66
December	989	747	6	43	186	1,598	**[4] 66**
AVERAGE	**1,070**	**776**	**32**	**48**	**209**	**1,716**	
1983 January	935	691	**[4] 243**	NA	294	1,574	61
February	857	632	270	NA	191	1,568	53
March	833	686	220	NA	169	1,569	46
April	942	743	-10	NA	310	1,364	47
May	930	709	-139	NA	190	1,310	51
June	832	676	28	NA	219	1,317	50
July	771	682	-58	NA	90	1,306	52
August	706	705	115	NA	165	1,362	48
September	815	690	-47	NA	134	1,324	50
October	799	634	-56	NA	153	1,224	51
November	848	777	-101	NA	167	1,358	54
December	893	646	173	NA	141	1,570	49
AVERAGE	**846**	**689**	**52**	**NA**	**185**	**1,403**	
1984 January	953	1,061	119	NA	151	1,981	45
February*	R 1,003	R 1,107	R – 420	NA	87	R 1,602	R 58
March**	*862*	*584*	*146*	NA	NA	*1,447*	*48*
AVERAGE	**938**	**913**	**-43**	**NA**	**NA**	**1,678**	

---

[1] Stocks are totals as of end of period.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 4.

[4] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

[5] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

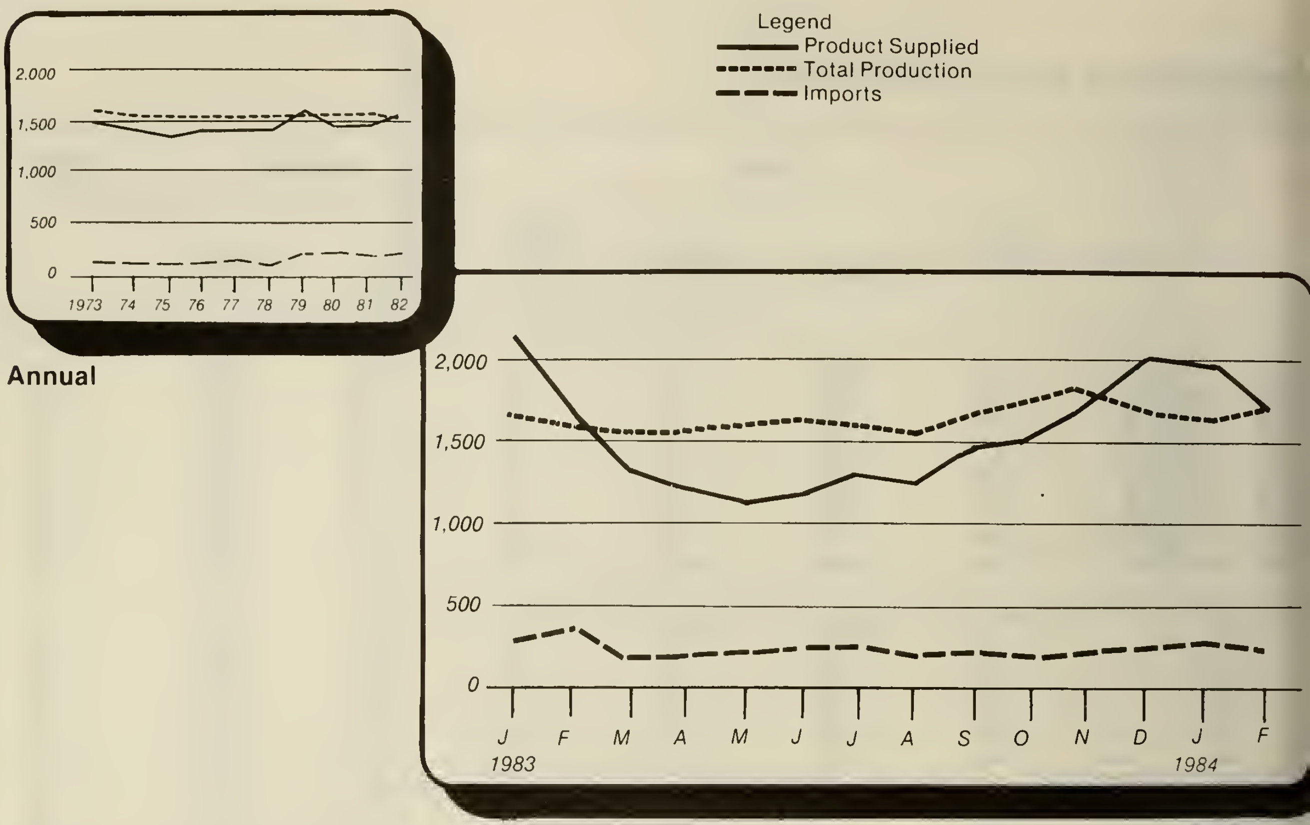
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Liquefied Petroleum Gases Supply and Disposition

(Thousand Barrels Per Day)

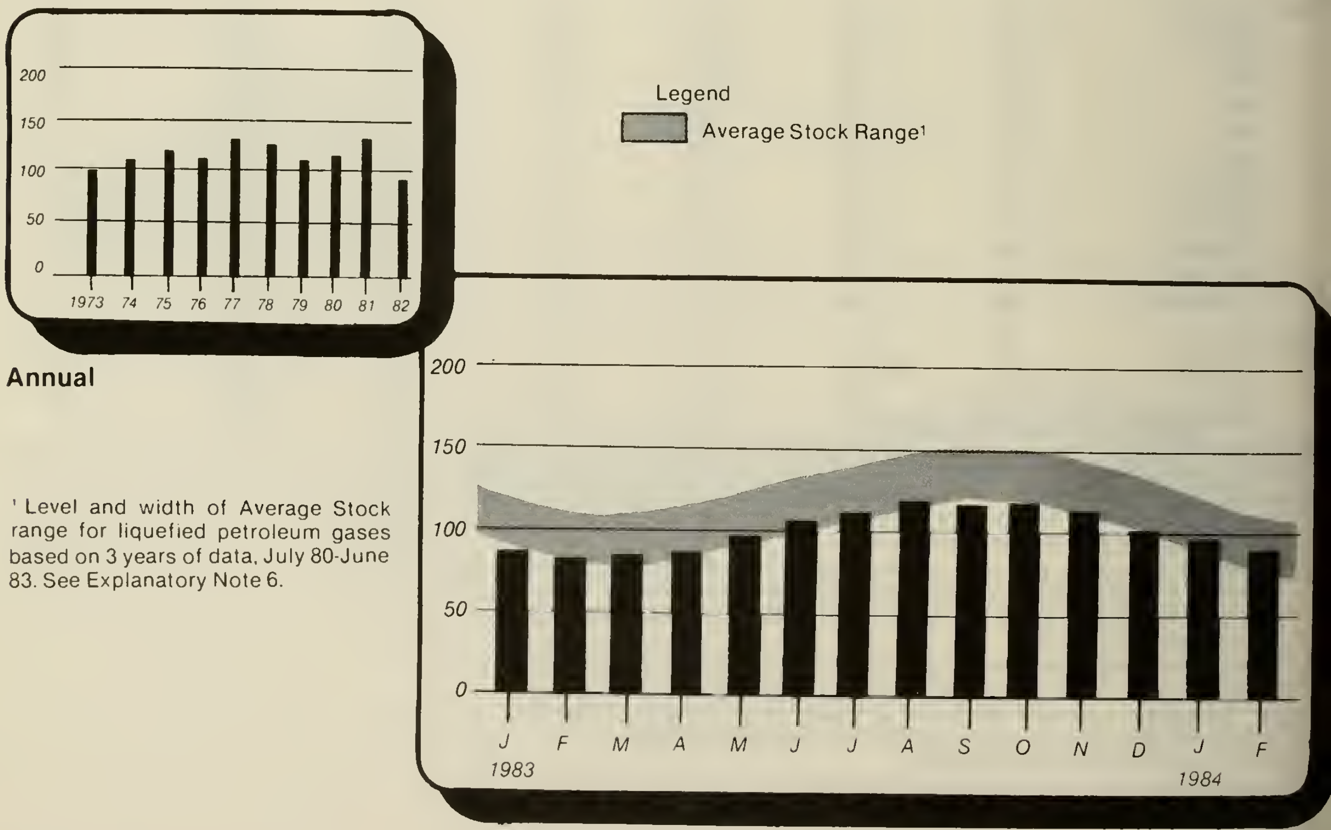


Annual

Montl

Liquefied Petroleum Gases Ending Stocks

(Million Barrels)



Annual

[1] Level and width of Average Stock range for liquefied petroleum gases based on 3 years of data, July 80-June 83. See Explanatory Note 6.

Monthly

Liquefied Petroleum Gases Supply and Disposition

	Supply			Disposition			Ending Stocks[1]
	Total Production	Imports	Stock Withdrawal[2]	Refinery Inputs	Exports	Products Supplied	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**1,600**	**132**	**-35**	**220**	**27**	**1,449**	**99**
1974 AVERAGE	**1,565**	**123**	**-38**	**220**	**25**	**1,406**	**[3] 113**
1975 AVERAGE	**1,527**	**112**	**[3] -35**	**246**	**26**	**1,333**	**125**
1976 AVERAGE	**1,535**	**130**	**24**	**260**	**25**	**1,404**	**116**
1977 AVERAGE	**1,566**	**161**	**-55**	**233**	**18**	**1,422**	**136**
1978 AVERAGE	**1,537**	**123**	**12**	**239**	**20**	**1,413**	**132**
1979 AVERAGE	**1,556**	**217**	**70**	**236**	**15**	**1,592**	**111**
1980 AVERAGE	**1,535**	**216**	**-27**	**233**	**21**	**1,469**	**[3] 120**
1981 AVERAGE	**1,571**	**244**	**[3] -18**	**289**	**42**	**1,466**	**135**
1982 January	1,565	314	443	391	67	1,863	121
February	1,466	291	243	327	51	1,621	114
March	1,544	223	211	289	74	1,615	108
April	1,506	188	98	257	77	1,458	105
May	1,565	186	-71	234	43	1,403	107
June	1,515	192	-86	262	106	1,254	109
July	1,476	227	-13	253	37	1,399	110
August	1,511	125	-45	254	61	1,276	111
September	1,538	247	37	274	85	1,463	110
October	1,517	194	97	306	81	1,421	107
November	1,542	267	175	363	37	1,583	102
December	1,580	258	256	395	56	1,642	[3] 94
AVERAGE	**1,528**	**226**	**111**	**300**	**65**	**1,499**	
1983 January	1,662	240	[3] 618	313	118	2,088	84
February	1,560	305	84	237	76	1,636	81
March	1,517	166	-51	189	127	1,316	83
April	1,531	124	-107	198	116	1,232	86
May	1,545	167	-326	207	84	1,094	96
June	1,593	172	-333	205	59	1,169	106
July	1,571	191	-206	217	55	1,284	112
August	1,505	160	-183	229	29	1,225	118
September	1,625	178	-23	236	86	1,457	119
October	1,688	160	-61	268	32	1,487	121
November	1,784	180	78	361	33	1,648	118
December	1,644	247	575	358	66	2,043	[3] 101
AVERAGE	**1,602**	**190**	**6**	**252**	**73**	**1,473**	
1984 January	1,610	269	[3] 470	333	23	1,993	93
February*	1,690	237	146	323	41	1,708	89
AVERAGE	**1,648**	**254**	**314**	**329**	**32**	**1,855**	

[1] Stocks are totals as of end of period.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

* See Explanatory Note 9.5.

Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Other Petroleum Products[1] Supply and Disposition

	Supply			Disposition			Ending Stocks[2]
	Total Production	Imports	Stock Withdrawal[3]	Refinery Inputs	Exports	Products Supplied	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**3,693**	**502**	**-9**	**750**	**166**	**3,270**	**208**
1974 AVERAGE	**3,558**	**432**	**-28**	**665**	**174**	**3,123**	[4] **218**
1975 AVERAGE	**3,424**	**277**	[4] **-2**	**537**	**160**	**3,002**	**219**
1976 AVERAGE	**3,643**	**206**	**-5**	**524**	**175**	**3,145**	**220**
1977 AVERAGE	**3,912**	**205**	**-27**	**514**	**165**	**3,410**	**230**
1978 AVERAGE	**4,046**	**166**	**14**	**492**	**167**	**3,568**	**225**
1979 AVERAGE	**4,153**	**195**	**-37**	**352**	**209**	**3,749**	**238**
1980 AVERAGE	**3,956**	**210**	**-23**	**311**	**198**	**3,634**	[4] **247**
1981 AVERAGE	**3,739**	**226**	[4] **46**	**723**	**199**	**3,088**	**282**
1982 January	3,171	269	-7	624	180	2,631	282
February	3,403	305	-153	663	138	2,755	287
March	3,466	243	-191	725	161	2,631	293
April	3,408	309	73	796	204	2,790	290
May	3,317	318	184	824	210	2,785	285
June	3,547	315	123	812	216	2,954	281
July	3,660	408	-1	856	187	3,023	281
August	3,583	346	217	743	202	3,201	274
September	3,533	375	105	749	213	3,051	271
October	3,529	383	244	915	266	2,976	264
November	3,498	423	-28	837	269	2,786	264
December	3,324	313	366	885	275	2,842	[4] 253
AVERAGE	**3,453**	**334**	**80**	**787**	**211**	**2,869**	
1983 January	3,222	297	[4] -371	570	271	2,307	271
February	3,270	287	-1	680	232	2,645	271
March	3,400	298	-94	570	249	2,786	273
April	3,363	377	3	596	247	2,901	273
May	3,448	364	26	694	242	2,902	273
June	3,674	427	99	715	292	3,197	270
July	3,703	393	106	757	209	3,237	266
August	3,774	435	23	689	242	3,302	266
September	3,861	460	-31	768	236	3,287	267
October	3,579	427	-124	701	195	2,985	270
November	3,560	442	101	912	238	2,955	267
December	3,106	450	387	877	257	2,808	[4] 255
AVERAGE	**3,498**	**388**	**10**	**711**	**242**	**2,943**	
1984 January	3,391	486	[4] -177	561	207	2,931	253
February*	3,582	586	-256	751	225	2,935	261
AVERAGE	**3,483**	**534**	**-215**	**653**	**216**	**2,933**	

---

[1] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[2] Stocks are totals as of end of period.

[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[4] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

* See Explanatory Note 9.6.

Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Sources

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual."

2. 1977 through 1980: Energy Information Administration (EIA), *Energy Data Reports*, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual," and unleaded gasoline data from *Monthly Petroleum Statistics Report*.

3. January 1981 through December 1982: EIA, *Petroleum Supply Annual.*

4. January 1983 through February 1984: Detailed statistics in appropriated issued of the Petroleum Supply Monthly. (see Explanatory Notes 9.1 through 9.6).

5. March 1984: Estimates based on EIA weekly data (except domestic crude oil production)(see Explanatory Note 1.1).

6. January 1983 through March 1984: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey. (See Explanatory Note 3).

LIBRARY U. OF I. URBANA-CHAMPAIGN

Detailed Statistics

LIBRARY U. OF I. URBANA-CHAMPAIGN

U.S. Petroleum Balance, February 1984

	Current Month		Year-to-date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Oil (Including Lease Condensate)				
Production				
ka	E 50,472	1,740	E 104,434	1,741
er 48 States	E 202,569	6,985	E 417,026	6,950
al U.S.	E 253,041	8,726	E 521,460	8,691
mports				
orts (Gross Excluding SPR)	83,158	2,868	170,855	2,848
Imports	2,452	85	8,649	144
orts	5,355	185	10,094	168
orts (Net Including SPR)	80,254	2,767	169,410	2,824
Sources				
Withdrawal (+) or Addition (-)	-2,789	-96	-8,149	-136
er Stock Withdrawal (+) or Addition (-)	8,186	282	2,950	49
duct Supplied and Losses	-1,904	-66	-3,929	-65
accounted for [1]	14,116	487	28,107	468
otal Other Sources	17,609	607	18,979	316
Input to Refineries	350,904	12,100	709,849	11,831
(3) + (7) + (12)				
l Gas Plant Liquids (NGPL)				
l Production	47,250	1,629	96,396	1,607
Imports [2]	1,755	60	2,352	38
k Withdrawal (+) or Addition (-) [2]	219	8	463	8
tal NGPL Supply	49,224	1,697	99,211	1,652
Liquids				
ished Oils and Gasoline Blending Components, Total				
ock Withdrawal (+) or Addition (-)	549	19	-5,832	-97
ports	8,087	279	17,957	299
er Hydrocarbons and Alcohol New Supply (Field Production)	1,598	55	2,765	46
nery Processing Gain [1]	17,373	599	32,232	537
de Oil Product Supplied	1,884	65	3,873	65
tal Other Liquids	29,491	1,017	50,995	850
) = (18) through (22)				
Production of Products [3]	429,619	14,814	860,051	14,333
(13) + (17) + (23)				
ports of Refined Products [3]				
orts (Gross)	68,110	2,349	129,498	2,158
orts	11,438	394	24,531	407
ports (Net)	56,671	1,954	104,966	1,751
New Supply of Products	486,290	16,769	965,021	16,084
(24) + (27)				
ed Products Stock Withdrawal (+) or Addition (-) [3]	-40,017	-1,380	-231	-4
Petroleum Products Supplied for Domestic Use	446,273	15,389	964,790	16,080
(28) + (29)				
shed Motor Gasoline	180,870	6,237	375,170	6,253
illate Fuel Oil	82,425	2,842	190,602	3,177
idual Fuel Oil	46,458	1,602	107,856	1,798
uefied Petroleum Gases	49,525	1,708	111,302	1,855
er [4]	85,111	2,935	175,987	2,933
de Oil	1,884	65	3,873	65
otal Product Supplied	446,273	15,389	964,790	16,080
7) = (31) through (36)				
g Stocks, All Oils				
de Oil and Lease Condensate (Excluding SPR)	340,226	--	340,226	--
ategic Petroleum Reserve (SPR)	387,238	--	387,238	--
finished Oils	109,638	--	109,638	--
soline Blending Components [5]	41,214	--	41,214	--
ntanes Plus	8,302	--	8,302	--
ished Refined Products [3]	577,281	--	577,281	--
otal Stocks	1,463,899	--	1,463,899	--

alancing item.
udes products in the pentanes plus category only.
products included see Explanatory Note 9.7.
udes pentanes plus, other liquids, and all finished petroleum
ducts except finished motor gasoline, distillate fuel oil, residual fuel
and liquefied petroleum gases.
udes other hydrocarbons and alcohol.
stimated.
lot Applicable.
Total may not equal sum of components due to independent rounding.
es and estimation procedures: See Explanatory Notes 1, 2 and 9.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, February 1984
(Thousand Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 253,041	**0**	**85,609**	**5,397**	**14,116**	**20**	**350,904**	**5,355**	**1,884**	**727,464**
Natural Gas Liquids and LRGs	**47,120**	**10,131**	**8,706**	**4,453**	**0**	**0**	**15,148**	**1,282**	**53,980**	**97,248**
Pentanes Plus	8,250	0	1,835	219	0	0	5,769	80	4,455	8,302
Liquefied Petroleum Gases	38,870	10,131	6,871	4,234	0	0	9,379	1,202	49,525	88,946
Ethane	14,864	850	2,912	183	0	0	71	160	18,578	20,677
Propane	15,342	8,089	2,322	2,232	0	0	127	708	27,150	42,150
Normal Butane	5,817	1,200	982	2,059	0	0	5,718	254	4,086	16,196
Isobutane	2,847	-8	655	-240	0	0	3,463	80	-289	9,923
Other Liquids	**1,598**	**0**	**8,087**	**549**	**0**	**0**	**16,007**	**0**	**-5,773**	**150,852**
Other Hydrocarbons and Alcohol	1,598	0	0	-39	0	0	1,559	0	0	346
Unfinished Oils	0	0	6,374	1,176	0	0	10,687	0	-3,137	109,638
Motor Gasoline Blending Components	0	0	1,713	-538	0	0	3,812	0	-2,637	40,480
Aviation Gasoline Blending Components	0	0	0	-50	0	0	-51	0	1	388
Finished Petroleum Products	**130**	**389,301**	**61,239**	**-44,251**	**0**	**0**	**0**	**10,237**	**396,182**	**488,335**
Finished Motor Gasoline	75	183,205	8,779	-11,139	0	0	0	50	180,870	196,677
Finished Leaded Motor Gasoline	47	76,312	4,825	-4,229	0	0	0	50	76,905	96,501
Finished Unleaded Motor Gasoline	28	106,893	3,954	-6,910	0	0	0	0	103,965	100,176
Finished Aviation Gasoline	0	854	1	-207	0	0	0	0	648	2,639
Naphtha-Type Jet Fuel	0	5,588	106	171	0	0	0	63	5,802	6,149
Kerosene-Type Jet Fuel	0	27,110	3,138	-3,644	0	0	0	68	26,536	32,899
Kerosene	1	4,393	560	-1,744	0	0	0	1	3,209	9,254
Distillate Fuel Oil	40	83,018	13,292	-12,721	0	0	0	1,203	82,425	132,181
Residual Fuel Oil	0	29,073	32,089	-12,168	0	0	0	2,536	46,458	57,598
Naphtha < 400 Deg. for Petro. Feed. Use	0	4,170	1,174	-110	0	0	0	141	5,093	1,675
Other Oils > 400 Deg. for Petro. Feed. Use	0	7,623	0	-162	0	0	0	337	7,124	1,934
Special Naphthas	-50	1,837	1,681	-63	0	0	0	42	3,363	3,134
Lubricants	0	4,557	306	610	0	0	0	342	5,131	11,736
Waxes	0	428	60	28	0	0	0	23	493	657
Petroleum Coke	0	12,988	0	-689	0	0	0	5,394	6,905	6,324
Asphalt and Road Oil	0	7,023	5	-2,493	0	0	0	12	4,523	23,555
Still Gas	0	15,815	0	0	0	0	0	0	15,815	0
Miscellaneous Products	64	1,619	50	80	0	0	0	24	1,789	1,923
Total	**301,889**	**399,432**	**163,641**	**-33,852**	**14,116**	**20**	**382,059**	**16,874**	**446,273**	**1,463,899**

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products, January - February 1984 (Thousand Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 521,460	0	179,504	-5,199	28,107	56	709,849	10,094	3,873	727,464
Natural Gas Liquids and LRGs	96,094	19,988	17,652	19,274	0	0	31,653	2,001	119,354	97,248
Pentanes Plus	17,179	0	2,432	463	0	0	11,942	80	8,052	8,302
Liquefied Petroleum Gases	78,915	19,988	15,221	18,811	0	0	19,711	1,921	111,302	88,946
Ethane	30,146	1,418	5,869	702	0	0	118	160	37,856	20,677
Propane	31,140	16,160	5,404	13,130	0	0	285	1,238	64,310	42,150
Normal Butane	11,987	2,425	2,386	4,193	0	0	12,275	443	8,273	16,196
Isobutane	5,642	-15	1,562	786	0	0	7,033	80	862	9,923
Other Liquids	2,765	0	17,957	-5,832	0	0	27,218	0	-12,328	150,852
Other Hydrocarbons and Alcohol	2,765	0	0	-61	0	0	2,704	0	0	346
Unfinished Oils	0	0	15,459	-2,140	0	0	18,603	0	-5,284	109,638
Motor Gasoline Blending Components	0	0	2,498	-3,560	0	0	5,983	0	-7,045	40,480
Aviation Gasoline Blending Components	0	0	0	-71	0	0	-72	0	1	388
Finished Petroleum Products	302	780,964	114,277	-19,042	0	0	0	22,610	853,891	488,335
Finished Motor Gasoline	137	370,302	15,988	-11,182	0	0	0	75	375,170	196,677
Finished Leaded Motor Gasoline	91	153,915	7,913	-2,417	0	0	0	75	159,427	96,501
Finished Unleaded Motor Gasoline	46	216,387	8,075	-8,765	0	0	0	0	215,743	100,176
Finished Aviation Gasoline	0	1,425	1	-348	0	0	0	0	1,078	2,639
Naphtha-Type Jet Fuel	0	11,147	544	64	0	0	0	63	11,692	6,149
Kerosene-Type Jet Fuel	0	54,010	4,553	-531	0	0	0	386	57,645	32,899
Kerosene	4	9,998	1,096	-1,394	0	0	0	2	9,702	9,254
Distillate Fuel Oil	75	163,107	21,651	8,221	0	0	0	2,451	190,602	132,181
Residual Fuel Oil	0	58,605	64,971	-8,490	0	0	0	7,231	107,856	57,598
Naphtha < 400 Deg. for Petro. Feed. Use	0	7,702	2,021	37	0	0	0	335	9,426	1,675
Other Oils > 400 Deg. for Petro. Feed. Use	0	14,835	0	-177	0	0	0	749	13,909	1,934
Special Naphthas	-50	3,367	2,109	19	0	0	0	88	5,358	3,134
Lubricants	0	8,872	654	339	0	0	0	645	9,220	11,736
Waxes	0	788	87	120	0	0	0	63	932	657
Petroleum Coke	0	26,553	0	-843	0	0	0	10,449	15,261	6,324
Asphalt and Road Oil	0	13,442	22	-4,763	0	0	0	17	8,684	23,555
Still Gas	0	32,722	0	0	0	0	0	0	32,722	0
Miscellaneous Products	136	4,089	580	-114	0	0	0	55	4,636	1,923
Total	620,621	800,952	329,390	-10,799	28,107	56	768,720	34,705	964,790	1,463,899

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, February 1984 (Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,726	0	2,952	186	487	1	12,100	185	65
Natural Gas Liquids and LRGs	1,625	349	300	154	0	0	522	44	1,861
Pentanes Plus	284	0	63	8	0	0	199	3	154
Liquefied Petroleum Gases	1,340	349	237	146	0	0	323	41	1,708
Ethane	513	29	100	6	0	0	2	6	641
Propane	529	279	80	77	0	0	4	24	936
Normal Butane	201	41	34	71	0	0	197	9	141
Isobutane	98	(s)	23	-8	0	0	119	3	-10
Other Liquids	55	0	279	19	0	0	552	0	-199
Other Hydrocarbons and Alcohol	55	0	0	-1	0	0	54	0	0
Unfinished Oils	0	0	220	41	0	0	369	0	-108
Motor Gasoline Blending Components	0	0	59	-19	0	0	131	0	-91
Aviation Gasoline Blending Components	0	0	0	-2	0	0	-2	0	(s)
Finished Petroleum Products	4	13,424	2,112	-1,526	0	0	0	353	13,661
Finished Motor Gasoline	3	6,317	303	-384	0	0	0	2	6,237
Finished Leaded Motor Gasoline	2	2,631	166	-146	0	0	0	2	2,652
Finished Unleaded Motor Gasoline	1	3,686	136	-238	0	0	0	0	3,585
Finished Aviation Gasoline	0	29	(s)	-7	0	0	0	0	22
Naphtha-Type Jet Fuel	0	193	4	6	0	0	0	2	200
Kerosene-Type Jet Fuel	0	935	108	-126	0	0	0	2	915
Kerosene	(s)	151	19	-60	0	0	0	(s)	111
Distillate Fuel Oil	1	2,863	458	-439	0	0	0	41	2,842
Residual Fuel Oil	0	1,003	1,107	-420	0	0	0	87	1,602
Naphtha < 400 Deg. for Petro. Feed. Use	0	144	40	-4	0	0	0	5	176
Other Oils > 400 Deg. for Petro. Feed. Use	0	263	0	-6	0	0	0	12	246
Special Naphthas	-2	63	58	-2	0	0	0	1	116
Lubricants	0	157	11	21	0	0	0	12	177
Waxes	0	15	2	1	0	0	0	1	17
Petroleum Coke	0	448	0	-24	0	0	0	186	238
Asphalt and Road Oil	0	242	(s)	-86	0	0	0	(s)	156
Still Gas	0	545	0	0	0	0	0	0	545
Miscellaneous Products	2	56	2	3	0	0	0	1	62
Total	10,410	13,774	5,643	-1,167	487	1	13,174	582	15,389

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	**E 8,691**	**0**	**2,992**	**-87**	**468**	**1**	**11,831**	**168**	**65**
Natural Gas Liquids and LRGs	**1,602**	**333**	**294**	**321**	**0**	**0**	**528**	**33**	**1,989**
Pentanes Plus	286	0	41	8	0	0	199	1	134
Liquefied Petroleum Gases	1,315	333	254	314	0	0	329	32	1,855
Ethane	502	24	98	12	0	0	2	3	631
Propane	519	269	90	219	0	0	5	21	1,072
Normal Butane	200	40	40	70	0	0	205	7	138
Isobutane	94	(s)	26	13	0	0	117	1	14
Other Liquids	**46**	**0**	**299**	**-97**	**0**	**0**	**454**	**0**	**-205**
Other Hydrocarbons and Alcohol	46	0	0	-1	0	0	45	0	0
Unfinished Oils	0	0	258	-36	0	0	310	0	-88
Motor Gasoline Blending Components	0	0	42	-59	0	0	100	0	-117
Aviation Gasoline Blending Components	0	0	0	-1	0	0	-1	0	(s)
Finished Petroleum Products	**5**	**13,016**	**1,905**	**-317**	**0**	**0**	**0**	**377**	**14,232**
Finished Motor Gasoline	2	6,172	266	-186	0	0	0	1	6,253
Finished Leaded Motor Gasoline	2	2,565	132	-40	0	0	0	1	2,657
Finished Unleaded Motor Gasoline	1	3,606	135	-146	0	0	0	0	3,596
Finished Aviation Gasoline	0	24	(s)	-6	0	0	0	0	18
Naphtha-Type Jet Fuel	0	186	9	1	0	0	0	1	195
Kerosene-Type Jet Fuel	0	900	76	-9	0	0	0	6	961
Kerosene	(s)	167	18	-23	0	0	0	(s)	162
Distillate Fuel Oil	1	2,718	361	137	0	0	0	41	3,177
Residual Fuel Oil	0	977	1,083	-142	0	0	0	121	1,798
Naphtha < 400 Deg. for Petro. Feed. Use	0	128	34	1	0	0	0	6	157
Other Oils > 400 Deg. for Petro. Feed. Use	0	247	0	-3	0	0	0	12	232
Special Naphthas	-1	56	35	(s)	0	0	0	1	89
Lubricants	0	148	11	6	0	0	0	11	154
Waxes	0	13	1	2	0	0	0	1	16
Petroleum Coke	0	443	0	-14	0	0	0	174	254
Asphalt and Road Oil	0	224	(s)	-79	0	0	0	(s)	145
Still Gas	0	545	0	0	0	0	0	0	545
Miscellaneous Products	2	68	10	-2	0	0	0	1	77
Total	**10,344**	**13,349**	**5,490**	**-180**	**468**	**1**	**12,812**	**578**	**16,080**

[1] Unaccounted for crude oil is a balancing item.
(s) = Less than 500 barrels.
E = Estimated.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 6. PAD District I, Supply and Disposition of Crude Oil and Petroleum Products, February 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 2,132	0	24,875	1,063	-930	3,519	-1	30,660	0	0	14,524
Natural Gas Liquids and LRGs	930	1,245	1,683	19	0	2,786	0	115	37	6,511	3,161
Liquefied Petroleum Gases	822	1,245	490	31	0	2,786	0	83	37	5,253	3,105
Pentanes Plus	108	0	1,193	-12	0	0	0	32	0	1,257	56
Other Liquids	293	0	3,592	334	0	497	0	5,115	0	-399	17,221
Other Hydrocarbons and Alcohol	293	0	0	-26	0	0	0	267	0	0	107
Unfinished Oils	0	0	2,375	75	0	459	0	4,031	0	-1,122	12,679
Motor Gasoline Blending Components	0	0	1,217	272	0	38	0	805	0	722	4,435
Aviation Gasoline Blending Components	0	0	0	13	0	0	0	12	0	1	0
Finished Petroleum Products	64	36,533	56,839	-27,862	0	73,632	0	0	600	138,607	170,372
Finished Motor Gasoline	64	17,172	8,021	-4,066	0	38,346	0	0	23	59,514	60,791
Finished Leaded Motor Gasoline	36	6,196	4,528	-1,730	0	13,484	0	0	23	22,491	28,913
Finished Unleaded Motor Gasoline	28	10,976	3,494	-2,336	0	24,862	0	0	0	37,024	31,878
Finished Aviation Gasoline	0	12	1	4	0	175	0	0	0	192	498
Naphtha-Type Jet Fuel	0	429	106	33	0	174	0	0	0	742	770
Kerosene-Type Jet Fuel	0	706	3,133	-1,277	0	9,463	0	0	0	12,025	8,431
Kerosene	0	382	559	-1,412	0	1,111	0	0	(s)	640	4,493
Distillate Fuel Oil	0	8,935	13,094	-10,961	0	21,797	0	0	2	32,862	54,356
Residual Fuel Oil	0	4,288	30,793	-9,827	0	1,450	0	0	1	26,704	30,797
Naphtha and Other Oils for Petro. Feed.	0	338	416	-191	0	-14	0	0	64	485	330
Special Naphthas	0	22	456	131	0	195	0	0	5	799	622
Lubricants	0	613	244	352	0	561	0	0	70	1,700	3,107
Waxes	0	51	6	26	0	9	0	0	4	88	116
Petroleum Coke	0	1,187	0	-202	0	0	0	0	412	573	1,009
Asphalt and Road Oil	0	725	2	-394	0	188	0	0	5	516	4,639
Still Gas	0	1,527	0	0	0	0	0	0	0	1,527	0
Miscellaneous Products	0	146	8	-78	0	177	0	0	13	240	413
Total	3,419	37,778	86,989	-26,446	-930	80,434	-1	35,890	637	144,718	205,278

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 7. PAD District II, Supply and Disposition of Crude Oil and Petroleum Products, February 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 30,366	0	14,148	-12	33,076	2,363	-7	79,528	420	0	73,571
Natural Gas Liquids and LRGs	8,890	2,137	5,331	1,038	0	3,064	0	4,874	543	15,043	30,650
Liquefied Petroleum Gases	7,602	2,137	5,331	1,226	0	2,394	0	3,497	463	14,730	27,347
Pentanes Plus	1,288	0	0	-188	0	670	0	1,377	80	313	3,303
Other Liquids	258	0	140	234	0	0	0	1,107	0	-475	25,405
Other Hydrocarbons and Alcohol	258	0	0	-2	0	0	0	256	0	0	131
Unfinished Oils	0	0	132	999	0	0	0	884	0	247	16,967
Motor Gasoline Blending Components	0	0	8	-678	0	0	0	52	0	-722	8,159
Aviation Gasoline Blending Components	0	0	0	-85	0	0	0	-85	0	0	148
Finished Petroleum Products	15	88,524	336	-7,657	0	16,720	0	0	227	97,711	128,085
Finished Motor Gasoline	0	49,060	8	-4,619	0	11,654	0	0	1	56,102	60,288
Finished Leaded Motor Gasoline	0	21,574	5	-1,568	0	6,171	0	0	1	26,182	30,824
Finished Unleaded Motor Gasoline	0	27,486	2	-3,051	0	5,483	0	0	0	29,920	29,464
Finished Aviation Gasoline	0	144	0	-89	0	134	0	0	0	189	662
Naphtha-Type Jet Fuel	0	905	0	50	0	84	0	0	0	1,039	1,423
Kerosene-Type Jet Fuel	0	4,747	0	-958	0	1,700	0	0	40	5,449	7,527
Kerosene	0	993	0	-523	0	211	0	0	0	681	2,045
Distillate Fuel Oil	0	19,098	33	97	0	2,663	0	0	4	21,887	37,049
Residual Fuel Oil	0	2,631	195	-556	0	-187	0	0	0	2,083	4,180
Naphtha and Other Oils for Petro. Feed.	0	843	19	-18	0	40	0	0	4	880	172
Special Naphthas	0	476	38	-4	0	105	0	0	18	597	504
Lubricants	0	751	10	90	0	191	0	0	12	1,030	2,097
Waxes	0	44	4	-10	0	0	0	0	(s)	38	67
Petroleum Coke	0	2,941	0	-163	0	0	0	0	140	2,638	1,205
Asphalt and Road Oil	0	2,356	3	-995	0	58	0	0	6	1,416	10,655
Still Gas	0	3,313	0	0	0	0	0	0	0	3,313	0
Miscellaneous Products	15	222	26	41	0	67	0	0	2	370	211
Total	39,529	90,661	19,955	-6,397	33,076	22,147	-7	85,509	1,190	112,279	257,711

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 8. PAD District III, Supply and Disposition of Crude Oil and Petroleum Products, February 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 121,684	0	41,604	5,479	-11,680	10,876	6	167,935	0	22	539,436
Natural Gas Liquids and LRGs	33,719	5,589	571	3,066	0	-4,632	0	8,816	557	28,940	60,935
Liquefied Petroleum Gases	28,060	5,589	(s)	2,648	0	-4,127	0	4,725	557	26,888	56,233
Pentanes Plus	5,659	0	571	418	0	-505	0	4,091	0	2,052	4,702
Other Liquids	603	0	3,841	761	0	-239	0	9,350	0	-4,384	68,390
Other Hydrocarbons and Alcohol	603	0	0	-7	0	0	0	596	0	0	101
Unfinished Oils	0	0	3,666	744	0	-236	0	5,270	0	-1,096	51,015
Motor Gasoline Blending Components	0	0	175	22	0	-3	0	3,482	0	-3,288	17,060
Aviation Gasoline Blending Components	0	0	0	2	0	0	0	2	0	0	214
Finished Petroleum Products	45	186,939	3,109	-7,450	0	-93,527	0	0	3,848	85,268	121,337
Finished Motor Gasoline	7	83,935	466	-3,628	0	-51,797	0	0	25	28,957	49,116
Finished Leaded Motor Gasoline	7	33,469	234	-1,201	0	-20,558	0	0	25	11,926	23,298
Finished Unleaded Motor Gasoline	0	50,466	231	-2,427	0	-31,239	0	0	0	17,031	25,818
Finished Aviation Gasoline	0	488	0	-35	0	-327	0	0	0	126	836
Naphtha-Type Jet Fuel	0	2,468	0	188	0	-465	0	0	63	2,128	2,068
Kerosene-Type Jet Fuel	0	13,939	0	-264	0	-12,090	0	0	0	1,585	10,293
Kerosene	1	2,815	0	140	0	-1,322	0	0	(s)	1,634	2,475
Distillate Fuel Oil	40	41,173	5	-2,095	0	-24,400	0	0	348	14,375	26,781
Residual Fuel Oil	0	11,909	625	-1,101	0	-1,459	0	0	338	9,636	12,861
Naphtha and Other Oils for Petro. Feed.	0	9,807	739	-30	0	-26	0	0	399	10,092	2,548
Special Naphthas	-50	1,231	1,169	-160	0	-300	0	0	18	1,872	1,766
Lubricants	0	2,836	52	118	0	-842	0	0	221	1,943	5,023
Waxes	0	266	47	6	0	-9	0	0	15	295	422
Petroleum Coke	0	5,425	0	-460	0	0	0	0	2,413	2,552	1,999
Asphalt and Road Oil	0	2,383	0	-354	0	-246	0	0	(s)	1,783	4,181
Still Gas	0	7,181	0	0	0	0	0	0	0	7,181	0
Miscellaneous Products	47	1,083	6	225	0	-244	0	0	8	1,110	968
Total	156,051	192,528	49,124	1,856	-11,680	-87,522	6	186,101	4,405	109,845	790,098

[1] Unaccounted for crude oil is a balancing item.
(s) = Less than 500 barrels.
E = Estimated.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

(Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	**E 16,075**	**0**	**741**	**-515**	**-4,598**	**0**	**1**	**11,694**	**0**	**8**	**14,357**
Natural Gas Liquids and LRGs	**2,688**	**73**	**573**	**-12**	**0**	**-1,218**	**0**	**500**	**(s)**	**1,603**	**1,146**
Liquefied Petroleum Gases	1,844	73	501	-11	0	-1,053	0	356	(s)	998	960
Pentanes Plus	844	0	72	-1	0	-165	0	144	0	606	186
Other Liquids	**6**	**0**	**0**	**-65**	**0**	**0**	**0**	**-321**	**0**	**262**	**4,915**
Other Hydrocarbons and Alcohol	6	0	0	0	0	0	0	6	0	0	0
Unfinished Oils	0	0	0	55	0	0	0	-300	0	355	2,463
Motor Gasoline Blending Components	0	0	0	-120	0	0	0	-27	0	-93	2,452
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	**6**	**12,017**	**154**	**-490**	**0**	**292**	**0**	**0**	**3**	**11,976**	**13,227**
Finished Motor Gasoline	4	6,203	37	-165	0	-13	0	0	0	6,066	6,285
Finished Leaded Motor Gasoline	4	3,554	36	5	0	-145	0	0	0	3,454	3,908
Finished Unleaded Motor Gasoline	0	2,649	1	-170	0	132	0	0	0	2,612	2,377
Finished Aviation Gasoline	0	24	0	-13	0	18	0	0	0	29	57
Naphtha-Type Jet Fuel	0	375	0	-55	0	-155	0	0	0	165	309
Kerosene-Type Jet Fuel	0	664	0	-198	0	715	0	0	0	1,181	660
Kerosene	0	33	0	19	0	0	0	0	0	52	22
Distillate Fuel Oil	0	3,124	92	193	0	-273	0	0	0	3,136	3,225
Residual Fuel Oil	0	301	23	11	0	0	0	0	0	335	401
Naphtha and Other Oils for Petro. Feed.	0	0	0	1	0	0	0	0	1	(s)	2
Special Naphthas	0	4	1	-3	0	0	0	0	(s)	2	9
Lubricants	0	26	(s)	145	0	0	0	0	1	170	84
Waxes	0	9	0	0	0	0	0	0	0	9	0
Petroleum Coke	0	275	0	-7	0	0	0	0	(s)	268	138
Asphalt and Road Oil	0	513	0	-419	0	0	0	0	(s)	94	2,029
Still Gas	0	436	0	0	0	0	0	0	0	436	0
Miscellaneous Products	2	30	(s)	1	0	0	0	0	0	33	6
Total	**18,775**	**12,090**	**1,467**	**-1,082**	**-4,598**	**-926**	**1**	**11,873**	**3**	**13,849**	**33,645**

[1] Unaccounted for crude oil is a balancing item.
(s) = Less than 500 barrels.
E = Estimated.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 10. PAD District V, Supply and Disposition of Crude Oil and Petroleum Products, February 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E **82,784**	**0**	**4,242**	**-618**	**-1,753**	**-16,758**	**21**	**61,087**	**4,935**	**1,854**	**85,576**
Natural Gas Liquids and LRGs	**893**	**1,087**	**550**	**342**	**0**	**0**	**0**	**843**	**145**	**1,884**	**1,356**
Liquefied Petroleum Gases	542	1,087	550	340	0	0	0	718	145	1,656	1,301
Pentanes Plus	351	0	0	2	0	0	0	125	0	228	55
Other Liquids	**438**	**0**	**514**	**-715**	**0**	**-258**	**0**	**756**	**0**	**-777**	**34,921**
Other Hydrocarbons and Alcohol	438	0	0	-4	0	0	0	434	0	0	7
Unfinished Oils	0	0	201	-697	0	-223	0	802	0	-1,521	26,514
Motor Gasoline Blending Components	0	0	313	-34	0	-35	0	-500	0	744	8,374
Aviation Gasoline Blending Components	0	0	0	20	0	0	0	20	0	0	26
Finished Petroleum Products	**0**	**65,288**	**800**	**-792**	**0**	**2,883**	**0**	**0**	**5,559**	**62,620**	**55,314**
Finished Motor Gasoline	0	26,835	247	1,339	0	1,810	0	0	1	30,230	20,197
Finished Leaded Motor Gasoline	0	11,519	22	265	0	1,048	0	0	1	12,853	9,558
Finished Unleaded Motor Gasoline	0	15,316	225	1,074	0	762	0	0	0	17,377	10,639
Finished Aviation Gasoline	0	186	0	-74	0	0	0	0	0	112	586
Naphtha-Type Jet Fuel	0	1,411	0	-45	0	362	0	0	0	1,728	1,579
Kerosene-Type Jet Fuel	0	7,054	4	-947	0	212	0	0	28	6,295	5,988
Kerosene	0	170	(s)	32	0	0	0	0	0	202	219
Distillate Fuel Oil	0	10,688	68	45	0	213	0	0	849	10,166	10,770
Residual Fuel Oil	0	9,944	452	-695	0	196	0	0	2,197	7,700	9,359
Naphtha and Other Oils for Petro. Feed.	0	805	0	-34	0	0	0	0	10	761	557
Special Naphthas	0	104	16	-27	0	0	0	0	(s)	93	233
Lubricants	0	331	(s)	-95	0	90	0	0	37	289	1,425
Waxes	0	58	3	6	0	0	0	0	5	62	52
Petroleum Coke	0	3,160	0	143	0	0	0	0	2,428	875	1,973
Asphalt and Road Oil	0	1,046	0	-331	0	0	0	0	1	714	2,051
Still Gas	0	3,358	0	0	0	0	0	0	0	3,358	0
Miscellaneous Products	0	138	9	-109	0	0	0	0	3	36	325
Total	**84,115**	**66,375**	**6,106**	**-1,783**	**-1,753**	**-14,133**	**21**	**62,686**	**10,639**	**65,582**	**177,167**

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

and State, for the Most Currently Available Month,[1] December 1983
(Thousand Barrels)

PAD District and State	Production	
	Total	Daily Average
PAD District I		
Florida	1,271	41
New York	E 71	E 2
Pennsylvania	E 364	E 12
Virginia	E 4	E 0
West Virginia	261	8
Adjustment [2]	320	10
Total PAD District I	E 2,291	E 74
PAD District II		
Illinois	2,113	68
Indiana	348	11
Kansas	5,630	182
Kentucky	588	19
Michigan	2,579	83
Missouri	E 17	E 1
Nebraska	480	15
North Dakota	4,153	134
Ohio	E 1,238	E 40
Oklahoma	11,258	363
South Dakota	96	3
Tennessee	67	2
Adjustment [2]	3,766	121
Total PAD District II	E 32,333	E 1,043
PAD District III		
Alabama	1,497	48
Arkansas	E 1,601	E 52
Louisiana		
Gulf Coast	E 39,095	E 1,261
Rest of State	2,590	84
Total Louisiana	E 41,685	E 1,345
Mississippi	2,714	88
New Mexico		
Northwestern	620	20
Southeastern	5,469	176
Total New Mexico	6,089	196
Texas		
TRRC District 01	2,018	65
TRRC District 02	3,217	104
TRRC District 03	E 9,914	E 320
TRRC District 04	2,201	71
TRRC District 05	700	23
TRRC District 06, excluding East Texas	3,321	107
TRRC District 07B	2,648	85
TRRC District 07C	2,778	90
TRRC District 08	17,946	579
TRRC District 08A	18,171	586
TRRC District 09	3,023	98
TRRC District 10	1,677	54
East Texas	4,189	135
Total Texas	71,803	2,316
Adjustment [2]	2,595	84
Total PAD District III	E 127,984	E 4,129
PAD District IV		
Colorado	2,343	76
Montana	2,351	76
Utah	E 2,446	E 79
Wyoming	E 9,607	E 310
Adjustment [2]	9	(s)
Total PAD District IV	E 16,756	E 541
PAD District V		
Alaska		
South Alaska	2,021	65
North Slope	51,032	1,646
Adjustment for Alaska[2]	35	1
Total Alaska	53,088	1,713
Arizona	19	1
California		
Central Coastal	6,509	210
East Central	21,212	684
North	15	(s)
South	6,604	213
Total California	34,340	1,108
Nevada	111	4
Adjustment for Arizona, California, and Nevada[2]	58	2
Total PAD District V	87,616	2,826
United States Total	E266,980	E8,612

[1] Includes the following offshore production (thousand barrels):
Alaska: State - 1,773;
California: Federal - 2,628, State - 3,160;
Louisiana: Federal - E27,042, State - 2,046;
Texas: Federal - E1,592, State- 176;
U.S. Total - E38,417.

[2] These adjustments are used to reconcile the national and PADD level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PADD level figures published in a previous issue. Final data at the State, PAD District and national levels will be published without adjustments in the Petroleum Supply Annual.

(s) = Less than 500 barrels.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.
- Data not available.
E = Estimated.

Table 12. Natural Gas Processing Plant Production of Petroleum Products by PAD District,[1] February 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Natural Gas Liquids	388	542	930	1	1,836	472	6,581	8,890	18,765	2,546	7,561	687	4,160	33,719	2,688	893	47,120
Pentanes Plus	45	63	108	0	247	113	928	1,288	3,154	256	1,391	185	673	5,659	844	351	8,250
Liquefied Petroleum Gases	343	479	822	1	1,589	359	5,653	7,602	15,611	2,290	6,170	502	3,487	28,060	1,844	542	38,870
Ethane	104	152	256	0	689	4	2,349	3,042	6,342	1,042	2,784	81	1,098	11,347	217	2	14,864
Propane	151	221	372	1	565	212	2,183	2,961	5,896	962	2,078	214	1,436	10,586	1,084	339	15,342
Normal Butane	69	76	145	0	181	118	814	1,113	2,378	145	681	134	642	3,980	437	142	5,817
Isobutane	19	30	49	0	154	25	307	486	995	141	627	73	311	2,147	106	59	2,847
Finished Petroleum Products	64	0	64	0	2	0	13	15	−19	43	3	17	1	45	6	0	130
Finished Motor Gasoline	64	0	64	0	0	0	0	0	7	0	0	0	0	7	4	0	75
Finished Leaded Motor Gasoline	36	0	36	0	0	0	0	0	7	0	0	0	0	7	4	0	47
Finished Unleaded Motor Gasoline	28	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1
Distillate Fuel Oil	0	0	0	0	0	0	0	0	1	39	0	0	0	40	0	0	40
Special Naphthas	0	0	0	0	0	0	0	0	−50	0	0	0	0	−50	0	0	−50
Miscellaneous Products	0	0	0	0	2	0	13	15	22	4	3	17	1	47	2	0	64
Total Production	452	542	994	1	1,838	472	6,594	8,905	18,746	2,589	7,564	704	4,161	33,764	2,694	893	47,250

[1] Production represents quantity of natural gas processing plant output less input to fractionating facilities.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 13. Refinery Input of Crude Oil and Petroleum Products by PAD District, February 1984
(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil (including lease condensate)	28,615	2,045	30,660	1,620	53,697	8,069	16,142	79,528	14,932	85,060	60,311	5,307	2,325	167,935	11,694	61,087	350,904
Pentanes Plus	32	0	32	0	573	48	756	1,377	861	2,390	582	194	64	4,091	144	125	5,769
Liquefied Petroleum Gases	25	58	83	170	2,367	202	758	3,497	568	1,634	2,282	171	70	4,725	356	718	9,379
Ethane	0	0	0	0	0	0	0	0	0	0	71	0	0	71	0	0	71
Propane	0	0	0	0	74	0	0	74	0	3	37	0	0	40	5	8	127
Normal Butane	0	58	58	86	1,506	175	319	2,086	283	1,176	1,209	73	44	2,785	299	490	5,718
Isobutane	25	0	25	84	787	27	439	1,337	285	455	965	98	26	1,829	52	220	3,463
Other Liquids																	
Other Hydrocarbons and Alcohol	267	0	267	0	256	0	0	256	0	318	273	0	5	596	6	434	1,559
Unfinished Oil (net)	4,053	-22	4,031	21	116	-70	817	884	-114	4,402	709	132	141	5,270	-300	802	10,687
Motor Gasoline Blending Components (net)	792	13	805	-5	195	-63	-75	52	121	1,279	2,099	-7	-10	3,482	-27	-500	3,812
Aviation Gasoline Blending Components (net)	12	0	12	0	-83	0	-2	-85	0	10	-8	0	0	2	0	20	-51
Total Input to Refineries	33,796	2,094	35,890	1,806	57,121	8,186	18,396	85,509	16,368	95,093	66,248	5,797	2,595	186,101	11,873	62,686	382,059
Crude Oil Distillation																	
Gross Input (daily average)	1,010	71	1,081	56	1,866	281	574	2,777	522	3,016	2,095	185	81	5,899	406	2,112	12,276
Operable Capacity (daily average)	1,405	174	1,579	66	2,318	295	791	3,470	615	3,867	2,539	292	107	7,420	555	3,114	16,139
Operating Ratio (percent)[1]	71.9	40.4	68.4	84.6	80.5	95.3	72.5	80.0	84.9	78.0	82.5	63.3	75.7	79.5	73.2	67.8	76.1
Crude Oil Qualities																	
Sulfur Content, Weighted Average (percent)	.97	.39	.92	.55	.82	1.67	.58	.85	.60	1.09	1.00	1.35	.73	1.02	.92	1.04	.97
API Gravity, Weighted Average	31.27	41.01	32.03	36.96	35.77	30.90	37.93	35.74	37.97	34.61	33.08	33.94	39.33	34.41	36.11	26.06	33.10
Operable Capacity (daily average)	1,405	174	1,579	66	2,318	295	791	3,470	615	3,867	2,539	292	107	7,420	555	3,114	16,139
Operating	1,197	94	1,291	66	2,110	295	714	3,185	575	3,538	2,363	204	107	6,786	479	2,762	14,503
Idle	208	80	289	0	208	0	77	285	41	328	176	88	0	633	76	353	1,636

[1] Represents gross input divided by operable capacity.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 14. Refinery Production of Petroleum Products by PAD District, February 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	1,224	21	1,245	37	1,670	199	231	2,137	204	2,650	2,561	76	98	5,589	73	1,087	10,131
For Petrochemical Feedstock Use	459	0	459	0	174	-15	40	199	52	1,479	1,615	6	0	3,152	6	211	4,027
For Other Uses	765	21	786	37	1,496	214	191	1,938	152	1,171	946	70	98	2,437	67	876	6,104
Ethane	12	0	12	0	0	0	0	0	0	824	13	0	1	838	0	0	850
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	432	0	0	0	432	0	0	432
For Other Uses	12	0	12	0	0	0	0	0	0	392	13	0	1	406	0	0	418
Propane	1,033	21	1,054	37	1,651	214	437	2,339	202	2,264	1,137	56	61	3,720	135	841	8,089
For Petrochemical Feedstock Use	378	0	378	0	170	0	40	210	52	1,087	104	0	0	1,243	0	150	1,981
For Other Uses	655	21	676	37	1,481	214	397	2,129	150	1,177	1,033	56	61	2,477	135	691	6,108
Normal Butane	179	0	179	0	15	-15	-206	-206	2	-417	1,411	20	36	1,052	-68	243	1,200
For Petrochemical Feedstock Use	81	0	81	0	0	-15	0	-15	0	-19	1,511	6	0	1,498	0	58	1,622
For Other Uses	98	0	98	0	15	0	-206	-191	2	-398	-100	14	36	-446	-68	185	-422
Isobutane for Petro. Feed. Use	0	0	0	0	4	0	0	4	0	-21	0	0	0	-21	6	3	-8
Finished Motor Gasoline	16,297	875	17,172	1,056	31,944	4,660	11,400	49,060	8,319	42,089	30,506	2,003	1,018	83,935	6,203	26,835	183,205
Finished Leaded Motor Gasoline	5,806	390	6,196	488	12,501	2,397	6,188	21,574	4,127	15,697	12,150	966	529	33,469	3,554	11,519	76,312
Finished Unleaded Motor Gasoline	10,491	485	10,976	568	19,443	2,263	5,212	27,486	4,192	26,392	18,356	1,037	489	50,466	2,649	15,316	106,893
Finished Aviation Gasoline	12	0	12	0	135	0	9	144	115	294	79	0	0	488	24	186	854
Naphtha-Type Jet Fuel	403	26	429	62	406	96	341	905	729	729	390	149	471	2,468	375	1,411	5,588
Kerosene-Type Jet Fuel	706	0	706	12	3,682	447	606	4,747	950	5,390	7,539	5	55	13,939	664	7,054	27,110
Kerosene	335	47	382	89	813	55	36	993	60	1,421	1,156	101	77	2,815	33	170	4,393
Distillate Fuel Oil	8,383	552	8,935	379	11,503	2,089	5,127	19,098	3,507	21,416	13,978	1,571	701	41,173	3,124	10,688	83,018
Residual Fuel Oil	4,146	142	4,288	66	1,928	249	388	2,631	656	7,914	3,034	293	12	11,909	301	9,944	29,073
Naphtha < 400 Deg. For Petro. Feed. Use	333	0	333	0	649	0	71	720	518	2,186	145	40	0	2,889	0	228	4,170
Other Oils > 400 Deg. For Petro. Feed. Use	5	0	5	0	123	0	0	123	115	4,256	2,547	0	0	6,918	0	577	7,623
Special Naphthas	5	17	22	0	269	0	207	476	35	1,010	71	115	0	1,231	4	104	1,837
Lubricants	364	249	613	0	373	0	378	751	49	1,642	775	370	0	2,836	26	331	4,557
Waxes	10	41	51	0	14	0	30	44	4	119	83	60	0	266	9	58	428
Petroleum Coke	1,171	16	1,187	25	1,883	502	531	2,941	265	2,560	2,473	117	10	5,425	275	3,160	12,988
Marketable	452	0	452	0	972	386	356	1,714	59	1,314	1,850	101	0	3,324	147	2,390	8,027
Catalyst	719	16	735	25	911	116	175	1,227	206	1,246	623	16	10	2,101	128	770	4,961
Asphalt and Road Oil	713	12	725	79	1,487	245	545	2,356	427	471	638	754	93	2,383	513	1,046	7,023
Still Gas	1,453	74	1,527	51	2,210	315	737	3,313	410	4,142	2,391	192	46	7,181	436	3,358	15,815
For Petrochemical Feedstock Use	158	0	158	0	4	0	0	4	5	502	104	0	0	611	32	96	901
For Other Uses	1,295	74	1,369	51	2,206	315	737	3,309	405	3,640	2,287	192	46	6,570	404	3,262	14,914
Miscellaneous Products	89	57	146	2	151	29	40	222	27	758	257	41	0	1,083	30	138	1,619
Fuel Use	-16	22	6	0	1	0	5	6	0	25	195	0	0	220	3	11	246
Non-Fuel Use	105	35	140	2	150	29	35	216	27	733	62	41	0	863	27	127	1,373
Total Production	35,649	2,129	37,778	1,858	59,240	8,886	20,677	90,661	16,390	99,047	68,623	5,887	2,581	192,528	12,090	66,375	399,432
Processing Gain(-) or Loss(+)[1]	-1,853	-35	-1,888	-52	-2,119	-700	-2,281	-5,152	-22	-3,954	-2,375	-90	14	-6,427	-217	-3,689	-17,373

---

[1] Represents the arithmetic difference between input and output.

Note: See Explanatory Note 2.

Source: See Explanatory Notes on Data Collection and Estimation.

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Finished Motor Gasoline[2]	46.5	39.7	46.1	54.3	53.1	55.9	58.7	54.6	45.7	40.8	41.4	30.2	36.1	41.0	50.2	42.1	45.0
Finished Aviation Gasoline[3]	.0	.0	.0	.0	.4	.0	.1	.3	.8	.3	.1	.0	.0	.3	.2	.3	.3
Liquefied Refinery Gases	3.7	1.0	3.6	2.3	3.1	2.5	1.4	2.7	1.4	3.0	4.2	1.4	4.0	3.2	.6	1.8	2.8
Naphtha-Type Jet Fuel	1.2	1.3	1.2	3.8	.8	1.2	2.0	1.1	4.9	.8	.6	2.7	19.1	1.4	3.3	2.3	1.5
Kerosene-Type Jet Fuel	2.2	0	2.0	.7	6.8	5.6	3.6	5.9	6.4	6.0	12.4	.1	2.2	8.0	5.8	11.4	7.5
Kerosene	1.0	2.3	1.1	5.4	1.5	.7	.2	1.2	.4	1.6	1.9	1.9	3.1	1.6	.3	.3	1.2
Distillate Fuel Oil	25.7	27.3	25.8	23.1	21.4	26.1	30.2	23.8	23.7	23.9	22.9	28.9	28.4	23.8	27.4	17.3	23.0
Residual Fuel Oil	12.7	7.0	12.4	4.0	3.6	3.1	2.3	3.3	4.4	8.8	5.0	5.4	.5	6.9	2.6	16.1	8.0
Naphtha < 400 Deg. F. Petro. Feed. Use	1.0	0	1.0	0	1.2	0	.4	.9	3.5	2.4	.2	.7	0	1.7	0	.4	1.2
Other Oils > 400 Deg. F. Petro. Feed. Use	.0	0	.0	0	.2	0	0	.2	.8	4.8	4.2	0	0	4.0	.0	.9	2.1
Special Naphthas	.0	.8	.1	0	.5	0	1.2	.6	.2	1.1	.1	2.1	0	.7	.0	.2	.5
Lubricants	1.1	12.3	1.8	0	.7	0	2.2	.9	.3	1.8	1.3	6.8	0	1.6	.2	.5	1.3
Waxes	.0	2.0	.1	0	.0	0	.2	.1	.0	.1	.1	1.1	0	.2	.1	.1	.1
Petroleum Coke	3.6	.8	3.4	1.5	3.5	6.3	3.1	3.7	1.8	2.9	4.1	2.2	.4	3.1	2.4	5.1	3.6
Asphalt and Road Oil	2.2	.6	2.1	4.8	2.8	3.1	3.2	2.9	2.9	.5	1.0	13.9	3.8	1.4	4.5	1.7	1.9
Still Gas	4.4	3.7	4.4	3.1	4.1	3.9	4.3	4.1	2.8	4.6	3.9	3.5	1.9	4.1	3.8	5.4	4.4
Miscellaneous Products	.3	2.8	.4	.1	.3	.4	.2	.3	.2	.8	.4	.8	0	.6	.3	.2	.4
Processing Gain(-) or Loss(+)[4]	-5.7	-1.7	-5.4	-3.2	-3.9	-8.8	-13.5	-6.4	-.1	-4.4	-3.9	-1.7	.6	-3.7	-1.9	-6.0	-4.8

---

[1] Based on crude oil input and net reruns of unfinished oils.

[2] Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

[3] Based on finished aviation gasoline output plus net output of aviation gasoline blending components.

[4] Represents the difference between Input and Production.

Note: Total may not equal sum of components due to independent rounding.

Note: See Explanatory 2.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 16. Imports of Crude Oil and Petroleum Products by PAD District, February 1984 (Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) 1 2	24,875	14,148	41,604	741	4,242	85,609
Natural Gas Liquids	1,683	5,331	571	573	550	8,706
Pentanes Plus	1,193	0	571	72	0	1,835
Liquefied Petroleum Gases	490	5,331	(s)	501	550	6,871
Ethane	0	2,912	0	0	0	2,912
Propane	434	1,541	(s)	237	110	2,322
Normal Butane	33	527	0	159	264	982
Isobutane	22	351	0	106	176	655
Other Liquids 1	3,592	140	3,841	0	514	8,087
Unfinished Oils 1	2,375	132	3,666	0	201	6,374
Motor Gasoline Blending Components	1,217	8	175	0	313	1,713
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	56,839	336	3,109	154	800	61,239
Finished Motor Gasoline	8,021	8	466	37	247	8,779
Finished Leaded Motor Gasoline	4,528	5	234	36	22	4,825
Finished Unleaded Motor Gasoline	3,494	2	231	1	225	3,954
Finished Aviation Gasoline	1	0	0	0	0	1
Naphtha-Type Jet Fuel	106	0	0	0	0	106
Kerosene-Type Jet Fuel	3,133	0	0	0	4	3,138
Bonded Aircraft Fuel	0	0	0	0	0	0
Other	3,133	0	0	0	4	3,138
Kerosene	559	0	0	0	(s)	560
Distillate Fuel Oil	13,094	33	5	92	68	13,292
Bonded Ships Bunkers	0	0	0	0	0	0
Other	13,094	33	5	92	68	13,292
Residual Fuel Oil	30,793	195	625	23	452	32,089
Bonded Ships Bunkers	0	0	0	0	0	0
Other	30,793	195	625	23	452	32,089
Naphtha < 400 Deg. for Petro. Feed. Use	416	19	739	0	0	1,174
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	456	38	1,169	1	16	1,681
Lubricants	244	10	52	(s)	(s)	306
Waxes	6	4	47	0	3	60
Asphalt and Road Oil	2	3	0	0	0	5
Miscellaneous Products	8	26	6	(s)	9	50
Total Imports	86,989	19,955	49,124	1,467	6,106	163,641

[1] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[2] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, February 1984
(Thousand Barrels)

Source	Crude Oil[1]	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products[2]	Total Products	Total Petroleum	Total (Daily Average)
	All PAD Districts													
Arab OPEC														
Algeria	6,053	0	0	0	283	282	0	681	1,374	848	571	4,038	10,091	348
Iraq	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Kuwait	1	0	0	0	0	0	0	0	524	0	0	524	525	18
Saudi Arabia	9,240	163	0	0	0	0	0	0	0	0	0	163	9,403	324
United Arab Emirates	519	0	0	0	0	0	0	0	434	0	0	434	953	33
Subtotal Arab OPEC	15,814	163	0	0	283	282	0	681	2,332	848	571	5,159	20,973	723
Other OPEC														
Ecuador	3,234	0	0	0	0	0	0	0	118	0	0	118	3,352	116
Gabon	871	0	0	0	0	0	0	0	246	60	0	306	1,177	41
Indonesia	7,293	0	0	0	138	0	0	61	244	0	0	442	7,735	267
Nigeria	6,925	0	0	0	0	0	0	53	90	0	0	143	7,068	244
Venezuela	6,122	0	221	175	891	128	0	1,413	5,008	0	(s)	7,836	13,958	481
Subtotal Other OPEC	24,445	0	221	175	1,028	128	0	1,527	5,706	60	(s)	8,846	33,290	1,148
Other														
Angola	1,472	0	0	0	0	0	0	0	268	0	0	268	1,740	60
Australia	666	0	0	0	0	0	0	0	0	0	51	51	717	25
Bahamas	0	0	1,332	0	0	122	69	729	1,305	0	570	4,126	4,126	142
Brazil	0	0	0	0	705	0	0	0	279	50	0	1,034	1,034	36
Brunei	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	8,608	6,612	139	8	285	0	6	1,228	711	66	315	8,714	17,977	620
Congo	0	0	0	0	0	0	0	0	190	0	0	190	190	7
France	0	0	0	0	0	0	0	0	0	0	9	9	9	(s)
Liberia	0	0	0	0	0	0	0	0	198	0	0	198	198	7
Malaysia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mexico	18,997	5	1,481	305	(s)	184	0	387	307	0	8	2,677	21,674	747
Netherlands	549	(s)	0	0	1,168	196	0	4,345	748	36	66	6,559	7,108	245
Netherlands Antilles	0	0	1,667	0	680	150	0	0	5,838	0	4	8,339	8,339	288
Norway	1,699	(s)	0	0	0	0	0	130	0	0	0	130	1,829	63
Oman	496	0	0	0	0	0	0	0	585	0	0	585	1,081	37
People's Republic of China	14	0	201	313	0	0	0	0	0	0	0	514	529	18
Peru	0	0	0	0	0	0	0	0	906	0	0	906	906	31
Puerto Rico	0	0	412	0	251	0	0	208	0	594	231	1,696	1,696	58
Romania	0	0	0	913	243	0	0	0	0	0	1,055	2,211	2,211	76
Spain	0	0	0	0	204	825	0	123	409	0	0	1,562	1,562	54
Trinidad and Tobago	1,647	0	0	0	0	0	0	0	585	0	0	585	2,232	77
United Kingdom	8,040	91	255	0	395	154	0	163	526	0	187	1,771	9,811	338
Virgin Islands	0	0	288	0	1,987	572	425	2,523	6,240	0	75	12,110	12,110	418
Zaire	395	0	0	0	0	0	0	0	0	0	0	0	395	14
Other Western Hemisphere	140	0	196	0	0	0	0	32	2,034	11	40	2,312	2,452	85
Other Eastern Hemisphere	2,627	(s)	182	0	1,548	631	60	1,217	2,922	15	251	6,825	9,453	326
Subtotal Other	45,351	6,707	6,153	1,538	7,468	2,834	560	11,083	24,051	772	2,860	63,372	109,377	3,772
Total Imports	85,609	6,871	6,374	1,713	8,779	3,244	560	13,292	32,089	1,681	3,431	77,376	163,641	5,643

See footnotes at end of table.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, February 1984 (Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfin-ished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
							PAD District I							
Arab OPEC														
Algeria	1,719	0	0	0	283	282	0	681	1,374	0	0	2,620	4,339	150
Kuwait	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Saudi Arabia	2,627	163	0	0	0	0	0	0	0	0	0	163	2,790	96
United Arab Emirates	0	0	0	0	0	0	0	0	434	0	0	434	434	15
Subtotal Arab OPEC	4,348	163	0	0	283	282	0	681	1,808	0	0	3,217	7,564	261
Other OPEC														
Ecuador	0	0	0	0	0	0	0	0	118	0	0	118	118	4
Gabon	0	0	0	0	0	0	0	0	246	60	0	306	306	11
Indonesia	4,048	0	0	0	0	0	0	0	0	0	0	0	4,048	140
Nigeria	2,383	0	0	0	0	0	0	50	90	0	0	140	2,524	87
Venezuela	1,561	0	0	0	659	128	0	1,413	5,008	0	(s)	7,209	8,769	302
Subtotal Other OPEC	7,992	0	0	0	659	128	0	1,464	5,462	60	(s)	7,773	15,766	544
Other														
Angola	917	0	0	0	0	0	0	0	268	0	0	268	1,184	41
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bahamas	0	0	0	0	0	122	69	729	1,305	0	180	2,404	2,404	83
Brazil	0	0	0	0	471	0	0	0	279	0	0	750	750	26
Canada	870	235	7	0	240	0	6	1,103	492	11	172	2,244	3,136	108
Congo	0	0	0	0	0	0	0	0	190	0	0	190	190	7
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Liberia	0	0	0	0	0	0	0	0	198	0	0	198	198	7
Mexico	2,092	0	0	305	0	184	0	384	300	0	0	1,172	3,265	113
Netherlands	0	(s)	0	0	1,168	196	0	4,345	748	0	0	6,458	6,458	223
Netherlands Antilles	0	0	1,408	0	680	150	0	0	5,838	0	4	8,080	8,080	279
Norway	1,699	0	0	0	0	0	0	130	0	0	0	130	1,829	63
Oman	496	0	0	0	0	0	0	0	585	0	0	585	1,081	37
People's Republic of China	14	0	0	0	0	0	0	0	0	0	0	0	14	(s)
Peru	0	0	0	0	0	0	0	0	805	0	0	805	805	28
Puerto Rico	0	0	412	0	251	0	0	208	0	370	231	1,472	1,472	51
Romania	0	0	0	913	243	0	0	0	0	0	1,055	2,211	2,211	76
Spain	0	0	0	0	204	825	0	123	409	0	0	1,562	1,562	54
Trinidad and Tobago	451	0	0	0	0	0	0	0	585	0	0	585	1,036	36
United Kingdom	4,157	91	255	0	395	154	0	163	526	0	(s)	1,584	5,741	198
Virgin Islands	0	0	288	0	1,987	572	425	2,523	6,240	0	0	12,035	12,035	415
Zaire	395	0	0	0	0	0	0	0	0	0	0	0	395	14
Other Western Hemisphere	0	0	0	0	0	0	0	32	2,034	0	(s)	2,066	2,066	71
Other Eastern Hemisphere	1,444	(s)	4	0	1,439	627	60	1,210	2,721	15	228	6,305	7,748	267
Subtotal Other	12,535	326	2,375	1,217	7,079	2,829	559	10,949	23,524	396	1,869	51,101	63,659	2,195
Total Imports	24,875	490	2,375	1,217	8,021	3,239	559	13,094	30,793	456	1,869	62,091	86,989	3,000
							PAD District II							
Arab OPEC														
Algeria	1,209	0	0	0	0	0	0	0	0	0	0	0	1,209	42
Saudi Arabia	423	0	0	0	0	0	0	0	0	0	0	0	423	15
United Arab Emirates	519	0	0	0	0	0	0	0	0	0	0	0	519	18
Subtotal Arab OPEC	2,151	0	0	0	0	0	0	0	0	0	0	0	2,151	74

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, February 1984
(Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD District II														
Other														
Canada	6,670	5,331	132	8	8	0	0	33	195	38	61	5,455	12,478	430
France	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mexico	3,898	0	0	0	0	0	0	0	0	0	0	0	3,898	134
Netherlands	549	0	0	0	0	0	0	0	0	0	0	0	549	19
Trinidad and Tobago	729	0	0	0	0	0	0	0	0	0	0	0	729	25
United Kingdom	152	0	0	0	0	0	0	0	0	0	1	1	152	5
Other Western Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Subtotal Other	11,997	5,331	132	8	8	0	0	33	195	38	62	5,455	17,804	814
Total Imports	14,148	5,331	132	8	8	0	0	33	195	38	62	5,455	19,955	688
PAD District III														
Arab OPEC														
Algeria	2,712	0	0	0	0	0	0	0	0	848	571	1,419	4,131	142
Iraq	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Kuwait	0	0	0	0	0	0	0	0	524	0	0	524	524	18
Saudi Arabia	6,190	0	0	0	0	0	0	0	0	0	0	0	6,190	213
United Arab Emirates	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Arab OPEC	8,902	0	0	0	0	0	0	0	524	848	571	1,943	10,845	374
Other OPEC														
Ecuador	3,234	0	0	0	0	0	0	0	0	0	0	0	3,234	112
Gabon	871	0	0	0	0	0	0	0	0	0	0	0	871	30
Indonesia	409	0	0	0	0	0	0	0	0	0	0	0	409	14
Nigeria	4,541	0	0	0	0	0	0	3	0	0	0	3	4,545	157
Venezuela	4,562	0	221	175	231	0	0	0	0	0	0	627	5,189	179
Subtotal Other OPEC	13,617	0	221	175	231	0	0	3	0	0	0	630	14,247	491
Other														
Angola	556	0	0	0	0	0	0	0	0	0	0	0	558	19
Australia	0	0	0	0	0	0	0	0	0	0	51	51	51	2
Bahamas	0	0	1,332	0	0	0	0	0	0	0	391	1,722	1,722	59
Brazil	0	0	0	0	234	0	0	0	0	50	0	285	285	10
Canada	(s)	0	0	0	0	0	0	0	0	0	0	0	(s)	(s)
France	0	0	0	0	0	0	0	0	0	0	8	8	8	(s)
Mexico	13,007	0	1,481	0	(s)	0	0	2	0	0	5	1,488	14,495	500
Netherlands	0	0	0	0	0	0	0	0	0	36	66	102	102	4
Netherlands Antilles	0	0	259	0	0	0	0	0	0	0	0	259	259	9
Norway	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Other														
Peru	0	0	0	0	0	0	0	0	101	0	0	101	101	3
Puerto Rico	0	0	0	0	0	0	0	0	0	224	0	224	224	8
Romania	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	467	0	0	0	0	0	0	0	0	0	0	0	467	16
United Kingdom	3,731	0	0	0	0	0	0	0	0	0	186	186	3,918	135

See footnotes at end of table.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, February 1984 (Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
							PAD District III							
Other														
Virgin Islands	0	0	0	0	0	0	0	0	0	0	75	75	75	3
Other Western Hemisphere	140	0	196	0	0	0	0	0	0	11	40	247	387	13
Other Eastern Hemisphere	1,184	0	177	0	0	0	0	0	0	0	22	200	1,383	48
Subtotal Other	19,085	(s)	3,445	0	234	0	0	2	101	321	844	4,947	24,032	829
Total Imports	41,604	(s)	3,666	175	466	0	0	5	625	1,169	1,415	7,520	49,124	1,694
							PAD District IV							
Other														
Canada	741	501	0	0	37	0	0	92	23	1	72	621	1,467	51
Subtotal Other	741	501	0	0	37	0	0	92	23	1	72	621	1,467	51
Total Imports	741	501	0	0	37	0	0	92	23	1	72	621	1,467	51
							PAD District V							
Arab OPEC														
Algeria	413	0	0	0	0	0	0	0	0	0	0	0	413	14
Subtotal Arab OPEC	413	0	0	0	0	0	0	0	0	0	0	0	413	14
Other OPEC														
Indonesia	2,836	0	0	0	138	0	0	61	244	0	0	442	3,277	113
Venezuela	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Other OPEC	2,836	0	0	0	138	0	0	61	244	0	0	442	3,277	113
Other														
Australia	666	0	0	0	0	0	0	0	0	0	0	0	666	23
Brunei	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	327	545	0	0	0	0	(s)	0	0	16	9	395	898	31
France	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malaysia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mexico	0	5	0	0	0	0	0	1	7	0	3	17	17	1
Netherlands	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Netherlands Antilles	0	0	0	0	0	0	0	0	0	0	0	0	0	0
People's Republic of China	0	0	201	313	0	0	0	0	0	0	0	514	514	18
United Kingdom	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	0	0	0	0	109	4	0	6	201	0	(s)	321	321	11
Subtotal Other	993	550	201	313	109	4	(s)	8	208	16	13	1,247	2,415	83
Total Imports	4,242	550	201	313	247	4	(s)	68	452	16	13	1,689	6,106	211

1 Includes crude oil imported for storage in the Strategic Petroleum Reserve.

2 Includes aviation gasoline, waxes, asphalt, lubricants, pentanes plus, napthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 18. Exports of Crude Oil and Petroleum Products by PAD District, February 1984
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) [1]	0	420	0	0	4,935	5,355
Natural Gas Liquids	37	543	557	(s)	145	1,282
Pentanes Plus	0	80	0	0	0	80
Liquefied Petroleum Gases	37	463	557	(s)	145	1,202
Ethane	0	160	0	0	0	160
Propane	19	134	497	(s)	58	708
Normal Butane	18	89	60	(s)	87	254
Isobutane	0	80	0	0	0	80
Finished Motor Gasoline	23	1	25	0	1	50
Naphtha-Type Jet Fuel	0	0	63	0	0	63
Kerosene-Type Jet Fuel	0	40	0	0	28	68
Kerosene	(s)	0	(s)	0	0	1
Distillate Fuel Oil	2	4	348	0	849	1,203
Residual Fuel Oil	1	0	338	0	2,197	2,536
Naphtha < 400 Deg. for Petrochem. Feedstock	64	4	63	1	9	141
Other Oils > 400 Deg. for Petrochem. Feedstock	0	0	336	0	2	337
Special Naphthas	5	18	18	(s)	(s)	42
Lubricants	70	12	221	1	37	342
Waxes	4	(s)	15	0	5	23
Petroleum Coke	412	140	2,413	(s)	2,428	5,394
Asphalt	5	6	(s)	(s)	1	12
Miscellaneous Products	13	2	8	0	3	24
Total Product Exports	637	770	4,405	3	5,704	11,518
Total Exports	637	1,190	4,405	3	10,639	16,874

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Table 19. Exports of Crude Oil and Petroleum Products by Destination, February 1984 (Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	0	0	0	0	0	0	6	(s)	0	0	0	6	(s)
Australia	0	(s)	0	0	0	0	3	2	(s)	122	(s)	5	133	5
Bahamas	0	8	1	0	345	491	0	2	0	0	0	(s)	846	29
Bahrain	0	0	0	0	0	0	(s)	(s)	0	64	0	0	64	2
Belgium & Luxembourg	0	(s)	0	0	0	0	(s)	3	(s)	521	(s)	(s)	524	18
Brazil	0	0	0	0	0	0	0	(s)	(s)	0	0	1	1	(s)
Cameroon	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Canada	420	468	23	40	233	11	19	34	2	410	8	105	1,773	61
Chile	0	0	0	0	0	0	0	20	0	(s)	0	(s)	20	1
China (Taiwan)	0	(s)	0	0	0	0	0	7	0	(s)	(s)	1	8	(s)
Colombia	0	2	0	0	0	0	0	5	(s)	(s)	0	(s)	8	(s)
Costa Rica	0	20	0	0	0	0	2	6	(s)	0	0	1	30	1
Denmark	0	0	0	0	0	0	0	(s)	(s)	317	0	(s)	317	11
Dominican Republic	0	36	0	0	0	0	0	(s)	1	0	0	(s)	37	1
Ecuador	0	128	25	0	0	0	0	1	(s)	0	0	(s)	155	5
Egypt	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
El Salvador	0	0	0	0	0	0	0	13	(s)	0	0	(s)	13	(s)
Finland	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
France	0	38	0	0	0	0	0	1	1	304	0	70	413	14
French Pacific Isl	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Ghana	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Guatemala	0	(s)	0	0	0	0	0	4	1	0	0	(s)	6	(s)
Guinea	0	(s)	0	0	0	0	(s)	1	0	0	0	(s)	2	(s)
Honduras	0	(s)	0	0	0	0	0	9	(s)	0	(s)	(s)	9	(s)
Hong Kong	0	(s)	0	0	0	0	2	1	(s)	0	(s)	1	5	(s)
India	0	0	0	0	0	0	0	(s)	(s)	38	0	0	38	1
Indonesia	0	(s)	0	0	0	0	0	2	0	0	0	(s)	3	(s)
Iran	0	0	0	0	0	0	1	0	0	0	0	0	1	(s)
Israel	0	0	0	0	0	0	1	(s)	(s)	0	0	2	4	(s)
Italy	0	104	0	0	(s)	0	0	1	(s)	460	0	183	748	26
Ivory Coast	0	0	0	0	0	29	0	(s)	0	0	0	(s)	29	1
Jamaica	0	1	0	0	0	0	0	(s)	0	0	0	1	3	(s)
Japan	0	3	0	0	0	526	8	10	3	910	(s)	21	1,481	51
Jordan	0	0	0	0	0	0	(s)	1	0	0	0	0	1	(s)
Korea, Republic of	0	0	0	0	0	1	0	1	(s)	(s)	0	3	6	(s)
Kuwait	0	0	0	0	0	0	0	2	0	0	0	0	2	(s)
Liberia	0	(s)	0	0	0	140	0	(s)	0	0	0	0	141	5
Malaysia	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Mexico	0	318	1	28	(s)	0	1	97	10	54	0	7	516	18
Netherlands	0	0	0	0	0	0	(s)	1	(s)	753	0	5	760	26
Netherlands Antilles	0	0	0	33	106	237	0	(s)	0	0	0	0	376	13
New Zealand	0	0	0	0	0	0	0	(s)	(s)	0	0	(s)	1	(s)
Nicaragua	0	0	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
Nigeria	0	(s)	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Norway	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Panama	0	1	0	0	135	365	(s)	(s)	(s)	0	0	(s)	502	17
Peru	0	0	0	0	355	0	0	35	(s)	0	0	(s)	390	13
Philippines	0	0	0	0	0	0	0	1	(s)	0	0	(s)	1	(s)
Puerto Rico	930	12	(s)	0	0	(s)	1	13	2	(s)	(s)	15	973	34
Rep. of South Africa	0	0	0	0	0	0	0	1	(s)	0	(s)	78	80	3
Saudi Arabia	0	19	0	0	0	0	(s)	21	0	0	0	4	44	2
Singapore	0	(s)	0	0	0	0	0	3	(s)	0	0	(s)	3	(s)

See footnotes at end of table.

Table 19. Exports of Crude Oil and Petroleum Products by Destination, February 1984
(Thousand Barrels)

(continued)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Spain	0	0	0	0	(s)	0	0	1	(s)	1,105	0	0	1,106	38
Surinam	0	0	0	0	0	0	0	(s)	0	15	0	(s)	15	1
Sweden	0	1	0	0	0	0	0	2	(s)	0	0	(s)	3	(s)
Switzerland	0	0	0	0	0	0	(s)	(s)	0	0	0	(s)	1	(s)
Thailand	0	(s)	0	0	0	0	1	15	(s)	(s)	0	1	18	1
Trinidad and Tobago	0	0	0	30	0	0	0	(s)	0	0	(s)	(s)	31	1
Turkey	0	0	0	0	0	0	0	0	(s)	0	0	38	38	1
United Arab Emirates	0	0	0	0	0	0	(s)	(s)	0	0	0	(s)	(s)	(s)
United Kingdom	0	38	(s)	0	4	0	(s)	1	1	30	(s)	3	77	3
U.S.S.R.	0	0	0	0	0	0	0	0	0	75	0	0	75	3
Uruguay	0	0	0	0	0	0	(s)	2	0	0	0	(s)	2	(s)
Venezuela	0	1	0	0	0	0	1	1	(s)	66	(s)	2	72	2
Virgin Islands	3,530	0	0	0	0	736	0	0	0	0	0	0	4,266	147
West Germany	0	(s)	0	0	0	0	0	2	1	52	0	2	58	2
Yugoslavia	0	0	0	0	0	0	0	(s)	0	95	0	0	95	3
Other	475	1	(s)	0	25	0	(s)	7	(s)	1	4	28	541	19
Total	5,355	1,202	50	131	1,203	2,536	42	342	23	5,394	12	583	16,874	582

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

[2] Includes pentanes plus, kerosene, naphtha less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, February 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil (incl. lease condensate)																	
Refinery	—	—	13,190	—	—	—	—	13,887	—	—	—	—	—	43,859	2,041	25,211	98,188
Tank Farms and Pipelines	—	—	1,276	—	—	—	—	58,097	—	—	—	—	—	91,434	10,950	31,306	193,063
Leases	—	—	58	—	—	—	—	1,587	—	—	—	—	—	16,905	1,366	1,660	21,576
Strategic Petroleum Reserve[1]	—	—	0	—	—	—	—	0	—	—	—	—	—	387,238	0	0	387,238
Alaskan In-Transit	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	27,399	27,399
Total	—	—	14,524	—	—	—	—	73,571	—	—	—	—	—	539,436	14,357	85,576	727,464
Total Stocks, All Oils (excl. Crude Oil)																	
Refinery	37,543	2,608	40,151	1,039	41,223	8,196	14,619	65,077	10,685	72,840	46,440	4,736	1,561	136,262	13,143	64,989	319,622
Bulk Terminal	—	—	123,936	—	—	—	—	81,125	—	—	—	—	—	69,049	3,058	21,515	298,683
Pipeline	—	—	26,502	—	—	—	—	36,367	—	—	—	—	—	39,058	2,849	4,986	109,762
Natural Gas Processing Plant	129	36	165	0	274	64	1,233	1,571	1,623	3,454	915	72	229	6,293	238	101	8,368
Total	—	—	190,754	—	—	—	—	184,140	—	—	—	—	—	250,662	19,288	91,591	736,435
Pentanes Plus																	
Refinery	16	0	16	0	103	80	152	335	61	107	206	54	12	440	18	13	822
Bulk Terminal	—	—	33	—	—	—	—	2,149	—	—	—	—	—	1,588	1	15	3,786
Pipeline	—	—	0	—	—	—	—	487	—	—	—	—	—	1,316	85	5	1,893
Natural Gas Processing Plant	4	3	7	0	61	20	251	332	456	451	392	28	31	1,358	82	22	1,801
Total	—	—	56	—	—	—	—	3,303	—	—	—	—	—	4,702	186	55	8,302
Liquefied Petroleum Gases																	
Refinery	600	16	616	189	1,471	137	624	2,421	198	603	1,773	21	26	2,621	301	683	6,642
Bulk Terminal	—	—	1,117	—	—	—	—	16,726	—	—	—	—	—	42,759	78	539	61,219
Pipeline	—	—	1,235	—	—	—	—	6,963	—	—	—	—	—	6,024	439	0	14,661
Natural Gas Processing Plant	104	33	137	0	211	44	982	1,237	1,064	3,002	523	42	198	4,829	142	79	6,424
Total	—	—	3,105	—	—	—	—	27,347	—	—	—	—	—	56,233	960	1,301	88,946
Ethane																	
Refinery	24	0	24	0	6	15	0	21	0	7	0	0	0	7	0	0	52
Bulk Terminal	—	—	0	—	—	—	—	3,185	—	—	—	—	—	11,766	0	0	14,951
Pipeline	—	—	0	—	—	—	—	1,843	—	—	—	—	—	1,987	137	0	3,967
Natural Gas Processing Plant	0	0	0	0	25	0	269	294	103	1,290	0	0	18	1,411	2	0	1,707
Total	—	—	24	—	—	—	—	5,343	—	—	—	—	—	15,171	139	0	20,677

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, February 1984
(Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Propane for Petrochemical Feedstock Use																	
Refinery	54	0	54	0	81	0	0	81	2	5	69	0	0	76	0	0	211
Total	—	—	54	—	—	—	—	81	—	—	—	—	—	76	0	0	211
Propane For Other Uses																	
Refinery	465	5	470	2	821	31	200	1,054	56	61	921	5	6	1,049	108	263	2,944
Bulk Terminal	—	—	978	—	—	—	—	10,881	—	—	—	—	—	16,947	77	175	29,058
Pipeline	—	—	1,129	—	—	—	—	3,261	—	—	—	—	—	2,625	181	0	7,196
Natural Gas Processing Plant	87	33	120	0	134	32	508	674	462	826	390	20	97	1,795	93	59	2,741
Total	—	—	2,697	—	—	—	—	15,870	—	—	—	—	—	22,416	459	497	41,939
Normal Butane For Petro. Feed Use																	
Refinery	0	0	0	0	0	26	0	26	0	11	0	2	0	13	6	3	48
Total	—	—	0	—	—	—	—	26	—	—	—	—	—	13	6	3	48
Normal Butane For Other Uses																	
Refinery	57	11	68	101	345	32	277	755	95	283	362	3	13	756	149	367	2,095
Bulk Terminal	—	—	100	—	—	—	—	1,305	—	—	—	—	—	8,549	1	244	10,199
Pipeline	—	—	81	—	—	—	—	1,383	—	—	—	—	—	921	76	0	2,461
Natural Gas Processing Plant	15	0	15	0	27	9	119	155	428	574	80	15	69	1,166	43	14	1,393
Total	—	—	264	—	—	—	—	3,598	—	—	—	—	—	11,392	269	625	16,148
Isobutane																	
Refinery	0	0	0	86	218	33	147	484	45	236	421	11	7	720	38	50	1,292
Bulk Terminal	—	—	39	—	—	—	—	1,355	—	—	—	—	—	5,497	0	120	7,011
Pipeline	—	—	25	—	—	—	—	476	—	—	—	—	—	491	45	0	1,037
Natural Gas Processing Plant	2	0	2	0	25	3	86	114	71	312	53	7	14	457	4	6	583
Total	—	—	66	—	—	—	—	2,429	—	—	—	—	—	7,165	87	176	9,923
Other Hydrocarbons and Alcohol																	
Refinery	107	0	107	0	131	0	0	131	1	88	12	0	0	101	0	7	346
Total	—	—	107	—	—	—	—	131	—	—	—	—	—	101	0	7	346
Unfinished Oils																	
Refinery																	
Naphthas and Lighter	3,801	162	3,963	42	2,730	137	1,168	4,077	796	8,190	6,022	159	64	15,231	449	5,231	28,951
Kerosene and Lighter Gas Oils	1,773	27	1,800	0	2,131	2	560	2,693	535	6,062	1,777	17	6	8,397	354	3,744	16,988
Heavy Gas Oils	4,638	295	4,933	94	4,210	353	1,635	6,292	1,085	10,360	7,651	148	160	19,404	1,049	11,552	43,230
Residuum	1,717	266	1,983	2	2,805	14	1,084	3,905	321	4,720	2,833	41	68	7,983	611	5,987	20,469
Total	11,929	750	12,679	138	11,876	506	4,447	16,967	2,737	29,332	18,283	365	298	51,015	2,463	26,514	109,638

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, February 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III							PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Motor Gasoline Blending Components																	
Refinery	4,263	84	4,347	37	5,409	838	1,717	8,001	1,580	7,875	6,483	173	271	16,382	2,452	8,181	39,363
Bulk Terminal	—	—	88	—	—	—	—	129	—	—	—	—	—	665	0	193	1,075
Pipeline	—	—	0	—	—	—	—	29	—	—	—	—	—	13	0	0	42
Total	—	—	4,435	—	—	—	—	8,159	—	—	—	—	—	17,060	2,452	8,374	40,480
Aviation Gasoline Blending Components																	
Refinery	0	0	0	0	141	0	7	148	0	11	203	0	0	214	0	26	388
Total	—	—	0	—	—	—	—	148	—	—	—	—	—	214	0	26	388
Total Finished Motor Gasoline																	
Refinery	5,242	247	5,489	120	6,096	1,825	2,788	10,829	2,559	9,460	5,036	986	244	18,285	2,838	7,657	45,098
Bulk Terminal	—	—	40,829	—	—	—	—	32,262	—	—	—	—	—	12,153	1,819	10,192	97,255
Pipeline	—	—	14,452	—	—	—	—	17,197	—	—	—	—	—	18,678	1,615	2,348	54,290
Natural Gas Processing Plant	21	0	21	0	0	0	0	0	0	0	0	0	0	0	13	0	34
Total	—	—	60,791	—	—	—	—	60,288	—	—	—	—	—	49,116	6,285	20,197	196,677
Finished Leaded Motor Gasoline																	
Refinery	2,141	138	2,279	68	2,503	1,121	1,578	5,270	1,405	4,037	2,103	479	138	8,162	1,711	3,470	20,892
Bulk Terminal	—	—	18,954	—	—	—	—	16,692	—	—	—	—	—	6,151	1,177	4,976	47,950
Pipeline	—	—	7,672	—	—	—	—	8,862	—	—	—	—	—	8,985	1,011	1,112	27,642
Natural Gas Processing Plant	8	0	8	0	0	0	0	0	0	0	0	0	0	0	9	0	17
Total	—	—	28,913	—	—	—	—	30,824	—	—	—	—	—	23,298	3,908	9,558	96,501
Finished Unleaded Motor Gasoline																	
Refinery	3,101	109	3,210	52	3,593	704	1,210	5,559	1,154	5,423	2,933	507	106	10,123	1,127	4,187	24,206
Bulk Terminal	—	—	21,875	—	—	—	—	15,570	—	—	—	—	—	6,002	642	5,216	49,305
Pipeline	—	—	6,780	—	—	—	—	8,335	—	—	—	—	—	9,693	604	1,236	26,648
Natural Gas Processing Plant	13	0	13	0	0	0	0	0	0	0	0	0	0	0	4	0	17
Total	—	—	31,878	—	—	—	—	29,464	—	—	—	—	—	25,818	2,377	10,639	100,176
Finished Aviation Gasoline																	
Refinery	45	0	45	0	223	0	10	233	120	395	160	0	0	675	44	206	1,203
Bulk Terminal	—	—	453	—	—	—	—	347	—	—	—	—	—	98	13	265	1,176
Pipeline	—	—	0	—	—	—	—	82	—	—	—	—	—	19	0	115	216
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	44	0	0	0	0	44	0	0	44
Total	—	—	498	—	—	—	—	662	—	—	—	—	—	836	57	586	2,639

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, February 1984
(Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Naphtha-Type Jet Fuel																	
Refinery	305	29	334	0	509	122	169	800	224	710	212	157	120	1,423	174	687	3,418
Bulk Terminal	—	—	320	—	—	—	—	570	—	—	—	—	—	204	18	550	1,662
Pipeline	—	—	116	—	—	—	—	53	—	—	—	—	—	441	117	342	1,069
Total	—	—	770	—	—	—	—	1,423	—	—	—	—	—	2,068	309	1,579	6,149
Kerosene-Type Jet Fuel																	
Refinery	1,014	0	1,014	35	1,425	232	90	1,782	299	2,190	2,139	10	44	4,682	321	3,436	11,235
Bulk Terminal	—	—	4,348	—	—	—	—	3,334	—	—	—	—	—	1,098	228	1,766	10,774
Pipeline	—	—	3,069	—	—	—	—	2,411	—	—	—	—	—	4,513	111	786	10,890
Total	—	—	8,431	—	—	—	—	7,527	—	—	—	—	—	10,293	660	5,988	32,899
Kerosene																	
Refinery	362	42	404	0	527	45	274	846	73	602	661	46	64	1,446	3	172	2,871
Bulk Terminal	—	—	3,697	—	—	—	—	887	—	—	—	—	—	529	19	47	5,179
Pipeline	—	—	392	—	—	—	—	312	—	—	—	—	—	498	0	0	1,202
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2
Total	—	—	4,493	—	—	—	—	2,045	—	—	—	—	—	2,475	22	219	9,254
Distillate Fuel Oils																	
Refinery	6,524	283	6,807	63	5,954	1,495	2,563	10,075	1,214	8,802	3,786	682	192	14,676	2,008	4,631	38,197
Bulk Terminal	—	—	40,348	—	—	—	—	18,166	—	—	—	—	—	4,830	735	4,992	69,071
Pipeline	—	—	7,201	—	—	—	—	8,808	—	—	—	—	—	7,272	482	1,147	24,910
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	2	1	0	0	0	3	0	0	3
Total	—	—	54,356	—	—	—	—	37,049	—	—	—	—	—	26,781	3,225	10,770	132,181
Residual Fuel Oils																	
Refinery	3,074	90	3,164	44	1,880	289	225	2,438	334	5,381	2,621	245	6	8,587	401	7,595	22,185
Bulk Terminal	—	—	27,602	—	—	—	—	1,742	—	—	—	—	—	4,273	0	1,621	35,238
Pipeline	—	—	31	—	—	—	—	0	—	—	—	—	—	1	0	143	175
Total	—	—	30,797	—	—	—	—	4,180	—	—	—	—	—	12,861	401	9,359	57,598
Naphtha < 400 Deg. Petro. Feedstock																	
Refinery	326	0	326	0	104	0	49	153	88	706	209	48	0	1,051	0	145	1,675
Total	326	0	326	0	104	0	49	153	88	706	209	48	0	1,051	0	145	1,675
Other Oils > 400 Deg. Petro. Feedstock																	
Refinery	4	0	4	0	19	0	0	19	191	1,051	255	0	0	1,497	2	412	1,934
Total	4	0	4	0	19	0	0	19	191	1,051	255	0	0	1,497	2	412	1,934

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, February 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Special Naphthas																	
Refinery	99	55	154	0	213	0	164	377	22	1,347	54	173	0	1,596	9	202	2,338
Bulk Terminal	—	—	468	—	—	—	—	127	—	—	—	—	—	122	0	31	748
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	48	0	0	0	0	48	0	0	48
Total	—	—	622	—	—	—	—	504	—	—	—	—	—	1,766	9	233	3,134
Lubricants																	
Refinery	1,216	853	2,069	0	759	0	268	1,027	27	2,914	1,246	581	0	4,768	81	545	8,490
Bulk Terminal	—	—	1,038	—	—	—	—	1,070	—	—	—	—	—	255	3	880	3,246
Total	—	—	3,107	—	—	—	—	2,097	—	—	—	—	—	5,023	84	1,425	11,736
Waxes																	
Refinery	9	107	116	0	22	0	45	67	14	201	133	74	0	422	0	52	657
Total	—	—	116	—	—	—	—	67	—	—	—	—	—	422	0	52	657
Petroleum Coke																	
Refinery	1,009	0	1,009	0	407	676	122	1,205	1	179	1,624	195	0	1,999	138	1,973	6,324
Total	1,009	0	1,009	0	407	676	122	1,205	1	179	1,624	195	0	1,999	138	1,973	6,324
Asphalt and Road Oil																	
Refinery	1,211	21	1,232	413	3,828	1,941	883	7,065	911	401	1,278	868	284	3,742	1,885	1,703	15,627
Bulk Terminal	—	—	3,407	—	—	—	—	3,590	—	—	—	—	—	439	144	348	7,928
Total	—	—	4,639	—	—	—	—	10,655	—	—	—	—	—	4,181	2,029	2,051	23,555
Miscellaneous Products																	
Refinery	188	31	219	0	126	10	22	158	31	485	66	58	0	640	5	149	1,171
Bulk Terminal	—	—	188	—	—	—	—	26	—	—	—	—	—	36	0	76	326
Pipeline	—	—	6	—	—	—	—	25	—	—	—	—	—	283	0	100	414
Natural Gas Processing Plant	0	0	0	0	2	0	0	2	7	0	0	2	0	9	1	0	12
Total	—	—	413	—	—	—	—	211	—	—	—	—	—	968	6	325	1,923
Total Stocks, All Oils	—	—	205,278	—	—	—	—	257,711	—	—	—	—	—	790,098	33,645	177,167	1,463,899

[1] Includes 33,879 thousand barrels of domestic crude oil.

Source: See Explanatory Notes on Data Collection and Estimation.

— Not Applicable.

Table 21. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge between PAD Districts, February 1984
(Thousand Barrels)

Commodity	From I to			From II to				From III to				From IV to			From V to			
	II	III	V	I	III	IV	V	I	II	IV	V	II	III	V	I	II	III	IV
Crude Oil (Tanker and Barge only)	0	0	0	0	0	0	0	385	1,828	0	0	0	0	0	3,134	535	13,089	0
Petroleum Products	7,747	147	0	3,036	8,280	2,243	0	81,531	24,160	0	2,027	1,436	635	1,098	242	0	258	0
Pentanes Plus	0	0	0	0	70	0	0	0	663	0	0	77	88	0	0	0	0	0
Liquefied Petroleum Gases	0	0	0	947	5,288	164	0	1,839	8,123	0	0	670	547	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	0	459	0	0	0	0	0	0	0	0	223	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	0	35	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	5,103	0	0	1,122	2,160	1,198	0	42,327	10,675	0	955	356	0	855	0	0	0	0
Finished Leaded Motor Gasoline	2,781	0	0	280	897	613	0	15,985	4,962	0	508	218	0	540	0	0	0	0
Finished Unleaded Motor Gasoline	2,322	0	0	842	1,263	585	0	26,342	5,713	0	447	138	0	315	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	18	0	175	152	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	102	0	0	0	107	0	0	276	2	0	294	87	0	68	0	0	0	0
Kerosene-Type Jet Fuel	329	0	0	128	88	754	0	9,664	2,341	0	173	0	0	39	0	0	0	0
Kerosene	80	0	0	0	0	0	0	1,191	131	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	1,829	0	0	412	439	109	0	22,972	1,548	0	319	246	0	136	242	0	0	0
Residual Fuel Oil	1	135	0	186	57	0	0	1,400	55	0	196	0	0	0	0	0	0	0
Naphtha and Other Oils for Petro. Feedstock	50	0	0	27	0	0	0	9	17	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	195	105	0	0	0	0	0	0	0	0	0
Lubricants	0	2	0	45	41	0	0	518	277	0	90	0	0	0	0	0	0	0
Waxes	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	0	188	58	0	0	0	0	0	0	0	0	0
Miscellaneous Products	253	10	0	169	30	0	0	271	13	0	0	0	0	0	0	0	0	0
Total All Products	7,747	147	0	3,036	8,280	2,243	0	81,916	25,988	0	2,027	1,436	635	1,098	3,376	535	13,347	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 22. Movements of Petroleum Products by Pipeline between PAD Districts, February 1984 (Thousand Barrels)

Commodity	From I to		From II to			From III to				From IV to			From V to	
	II	III	I	III	IV	I	II	IV	V	II	III	V	III	IV
Pentanes Plus	0	0	0	70	0	0	663	0	0	77	88	0	0	0
Liquefied Petroleum Gases	0	0	947	5,288	164	1,643	8,123	0	0	670	547	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	3,557	0	960	2,148	1,198	32,475	10,066	0	955	356	0	855	0	0
Finished Leaded Motor Gasoline	1,910	0	223	885	613	12,247	4,698	0	508	218	0	540	0	0
Finished Unleaded Motor Gasoline	1,647	0	737	1,263	585	20,228	5,368	0	447	138	0	315	0	0
Finished Aviation Gasoline	0	0	0	0	18	7	130	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	107	0	261	2	0	294	87	0	68	0	0
Kerosene-Type Jet Fuel	213	0	118	88	754	6,515	1,994	0	173	0	0	39	0	0
Kerosene	55	0	0	0	0	1,025	122	0	0	0	0	0	0	0
Distillate Fuel Oil	1,297	0	393	439	109	17,014	1,355	0	319	246	0	136	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	144	0	0	0	0	0	0	0	0	0	0	0
Total	5,122	0	2,562	8,140	2,243	58,940	22,455	0	1,741	1,436	635	1,098	0	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 23. Movements of Crude Oil and Petroleum Products by Tanker and Barge between PAD Districts, February 1984 (Thousand Barrels)

Commodity	From I to			From II to			From III to						From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Crude Oil	0	0	0	0	0	0	385	0	385	0	1,828	0	3,134	535	13,089
Petroleum Products	2,625	147	0	474	140	0	22,591	2,006	5,068	15,517	1,705	286	242	0	258
Liquefied Petroleum Gases	0	0	0	0	0	0	196	0	0	196	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	459	0	371	88	0	0	0	0	223
Motor Gasoline Blending Components	0	0	0	0	0	0	38	0	0	38	0	0	0	0	35
Finished Motor Gasoline	1,546	0	0	162	12	0	9,852	372	460	9,020	609	0	0	0	0
Finished Leaded Motor Gasoline	871	0	0	57	12	0	3,738	77	48	3,613	264	0	0	0	0
Finished Unleaded Motor Gasoline	675	0	0	105	0	0	6,114	295	412	5,407	345	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	168	0	54	114	22	0	0	0	0
Naphtha-Type Jet Fuel	102	0	0	0	0	0	15	15	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	116	0	0	10	0	0	3,149	401	856	1,892	347	0	0	0	0
Kerosene	25	0	0	0	0	0	166	53	99	14	9	0	0	0	0
Distillate Fuel Oil	532	0	0	19	0	0	5,958	974	2,422	2,562	193	0	242	0	0
Residual Fuel Oil	1	135	0	186	57	0	1,400	191	95	1,114	55	196	0	0	0
Naphtha and Other Oils for Petro. Feed. Use	50	0	0	27	0	0	9	0	0	9	17	0	0	0	0
Special Naphthas	0	0	0	0	0	0	195	0	109	86	105	0	0	0	0
Lubricants	0	2	0	45	41	0	518	0	367	151	277	90	0	0	0
Waxes	0	0	0	0	0	0	9	0	9	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	188	0	0	188	58	0	0	0	0
Miscellaneous Products	253	10	0	25	30	0	271	0	226	45	13	0	0	0	0
Total	2,625	147	0	474	140	0	22,976	2,006	5,453	15,517	3,533	286	3,376	535	13,347

Table 24. Net Movements of Crude Oil and Petroleum Products by Pipeline,
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			PAD District V		
	Receipts into PADD I	Ship-ments from PADD I	Net Receipts PADD I	Receipts into PADD II	Ship-ments from PADD II	Net Receipts PADD II	Receipts into PADD III	Ship-ments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Ship-ments from PADD VI	Net Receipts PADD IV	Receipts into PADD V	Ship-ments from PADD V	Net Receipts PADD V
Crude Oil (Tanker and Barge only)	3,519	0	3,519	2,363	0	2,363	13,089	2,213	10,876	0	0	0	0	16,758	-16,758
Petroleum Products	84,809	7,894	76,915	33,343	13,559	19,784	9,320	107,718	-98,398	2,243	3,169	-926	3,125	500	2,625
Pentanes Plus	0	0	0	740	70	670	158	663	-505	0	165	-165	0	0	0
Liquefied Petroleum Gases	2,786	0	2,786	8,793	6,399	2,394	5,835	9,962	-4,127	164	1,217	-1,053	0	0	0
Unfinished Oils	459	0	459	0	0	0	223	459	-236	0	0	0	0	223	-223
Motor Gasoline Blending Components	38	0	38	0	0	0	35	38	-3	0	0	0	0	35	-35
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	43,449	5,103	38,346	16,134	4,480	11,654	2,160	53,957	-51,797	1,198	1,211	-13	1,810	0	1,810
Finished Leaded Motor Gasoline	16,265	2,781	13,484	7,961	1,790	6,171	897	21,455	-20,558	613	758	-145	1,048	0	1,048
Finished Unleaded Motor Gasoline	27,184	2,322	24,862	8,173	2,690	5,483	1,263	32,502	-31,239	585	453	132	762	0	762
Finished Aviation Gasoline	175	0	175	152	18	134	0	327	-327	18	0	18	0	0	0
Naphtha-Type Jet Fuel	276	102	174	191	107	84	107	572	-465	0	155	-155	362	0	362
Kerosene-Type Jet Fuel	9,792	329	9,463	2,670	970	1,700	88	12,178	-12,090	754	39	715	212	0	212
Kerosene	1,191	80	1,111	211	0	211	0	1,322	-1,322	0	0	0	0	0	0
Distillate Fuel Oil	23,626	1,829	21,797	3,623	960	2,663	439	24,839	-24,400	109	382	-273	455	242	213
Residual Fuel Oil	1,586	136	1,450	56	243	-187	192	1,651	-1,459	0	0	0	196	0	196
Naphtha and Other Oils for Petro. Feedstock Use	36	50	-14	67	27	40	0	26	-26	0	0	0	0	0	0
Special Naphthas	195	0	195	105	0	105	0	300	-300	0	0	0	0	0	0
Lubricants	563	2	561	277	86	191	43	885	-842	0	0	0	90	0	90
Waxes	9	0	9	0	0	0	0	9	-9	0	0	0	0	0	0
Asphalt and Road Oil	188	0	188	58	0	58	0	246	-246	0	0	0	0	0	0
Miscellaneous Products	440	263	177	266	199	67	40	284	-244	0	0	0	0	0	0
Total All Products	88,328	7,894	80,434	35,706	13,559	22,147	22,409	109,931	-87,522	2,243	3,169	-926	3,125	17,258	-14,133

Source: See Explanatory Notes on Data Collection and Estimation.

Table 25. Production of Residual Fuel Oil by Sulfur Content, February 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Residual Fuel Oil	4,146	142	4,288	66	1,928	249	388	2,631	656	7,914	3,034	293	12	11,909	301	9,944	29,073
0.00 to 0.30% Sulfur	539	43	582	0	168	0	27	195	37	680	319	60	6	1,102	89	564	2,532
0.31 to 1.00% Sulfur	2,439	2	2,441	33	603	0	56	692	472	1,861	1,057	171	0	3,561	66	2,155	8,915
Greater Than 1.00% Sulfur	1,168	97	1,265	33	1,157	249	305	1,744	147	5,373	1,658	62	6	7,246	146	7,225	17,626

Source: See Explanatory Notes on Data Collection and Estimation.

Table 26. Stocks of Residual Fuel Oil by Sulfur Content, February 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Residual Fuel Oil -- 0.00 to 0.30% Sulfur																	
Refinery	502	38	540	0	156	0	38	194	44	168	134	11	3	360	90	212	1,396
Bulk Terminal	--	--	6,072	--	--	--	--	9	--	--	--	--	--	0	0	9	6,090
Total	--	--	6,612	--	--	--	--	203	--	--	--	--	--	360	90	221	7,486
Residual Fuel Oil -- 0.31 to 1.00% Sulfur																	
Refinery	1,701	3	1,704	40	626	0	26	692	111	1,628	1,134	183	0	3,056	62	2,133	7,647
Bulk Terminal	--	--	10,692	--	--	--	--	492	--	--	--	--	--	2,248	0	522	13,954
Total	--	--	12,396	--	--	--	--	1,184	--	--	--	--	--	5,304	62	2,655	21,601
Residual Fuel Oil -- Greater than 1.00% Sulfur																	
Refinery	871	49	920	4	1,098	289	161	1,552	179	3,585	1,353	51	3	5,171	249	5,250	13,142
Bulk Terminal	--	--	10,838	--	--	--	--	1,241	--	--	--	--	--	2,025	0	1,090	15,194
Total	--	--	11,758	--	--	--	--	2,793	--	--	--	--	--	7,196	249	6,340	28,336

Source: See Explanatory Notes on Data Collection and Estimation.
-- Not Applicable

Table 27. Movements of Residual Fuel Oil by Tanker and Barge between PAD Districts, By Sulfur Content, February 1984
(Thousand Barrels)

Commodity	From I to			From II to			From III to						From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Residual Fuel Oil	1	135	0	186	57	0	1,400	191	95	1,114	55	196	0	0	0
0.00 to 0.30% Sulfur	0	0	0	0	57	0	95	0	95	0	0	0	0	0	0
0.31 to 1.00% Sulfur	1	0	0	0	0	0	403	191	0	212	0	196	0	0	0
Greater Than 1.00% Sulfur	0	135	0	186	0	0	902	0	0	902	55	0	0	0	0

Table 28. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, February 1984
(Thousand Barrels)

Country	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
Arab OPEC				
Algeria	1,374	0	0	1,374
Iraq	0	0	0	0
Kuwait	524	0	0	524
Libya	0	0	0	0
Qatar	0	0	0	0
Saudi Arabia	0	0	0	0
United Arab Emirates	0	0	434	434
Subtotal Arab OPEC	1,898	0	434	2,332
Other OPEC				
Ecuador	0	0	118	118
Gabon	246	0	0	246
Indonesia	147	51	45	244
Iran	0	0	0	0
Nigeria	69	21	0	90
Venezuela	1,310	478	3,220	5,008
Subtotal Other OPEC	1,773	550	3,383	5,706
Other				
Angola	0	268	0	268
Australia	0	0	0	0
Bahamas	1,087	0	218	1,305
Bolivia	0	0	0	0
Brazil	279	0	0	279
Brunei	0	0	0	0
Canada	236	263	212	711
Congo	190	0	0	190
Egypt	0	0	0	0
France	0	0	0	0
Ghana	0	0	0	0
Liberia	198	0	0	198
Malaysia	0	0	0	0
Mexico	0	0	307	307
Netherlands	512	237	0	748
Netherlands Antilles	1,569	0	4,268	5,838
Norway	0	0	0	0
Oman	273	0	312	585
People's Republic of China	0	0	0	0
Peru	646	0	261	906
Puerto Rico	0	0	0	0
Romania	0	0	0	0
Spain	0	409	0	409
Syria	0	0	0	0
Trinidad	0	0	585	585
Tunisia	0	0	0	0
United Kingdom	526	0	0	526
Virgin Islands	2,653	3,379	208	6,240
Yugoslavia	0	0	0	0
Zaire	0	0	0	0
Other				
Other Western Hemisphere	828	363	843	2,034
Other Eastern Hemisphere	1,695	1,179	48	2,922
Subtotal Other	10,692	6,098	7,262	24,051
Total Imports	14,363	6,647	11,079	32,089

(s) = Less than 500 barrels.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 29. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, February 1984 (Thousand Barrels)

State	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
PAD District I	**13,455**	**6,386**	**10,953**	**30,793**
Connecticut	467	0	0	467
Delaware	238	0	0	238
Florida	80	335	847	1,262
Maine	206	0	1,538	1,745
Maryland	389	562	365	1,315
Massachusetts	1,123	530	1,490	3,144
New Hampshire	175	50	484	709
New Jersey	892	946	1,832	3,670
New York	8,718	2,905	2,548	14,171
North Carolina	215	0	283	498
Pennsylvania	514	659	465	1,638
South Carolina	151	0	355	506
Vermont	13	0	0	13
Virginia	273	400	745	1,418
PAD District II	**130**	**59**	**7**	**195**
Illinois	0	43	0	43
Michigan	126	15	0	141
Minnesota	0	0	2	2
North Dakota	4	0	5	9
PAD District III	**625**	**0**	**0**	**625**
Texas	625	0	0	625
PAD District IV	**6**	**0**	**18**	**23**
Montana	6	0	18	23
PAD District V	**147**	**203**	**101**	**452**
California	147	0	7	155
Hawaii	0	203	94	297
All PAD Districts	**14,363**	**6,647**	**11,079**	**32,089**

Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Glossary

LIBRARY U. OF I. URBANA-CHAMPAIGN

Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; CH-(CH)n-OH. Alcohol includes methanol and ethanol.

Alkylation. A refinery process for chemically combining isoparaffin with olefin hydrocarbons. The product, alkylate, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Deg API} = \frac{141.5}{\text{sp gr 60F/60F}} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene.

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor for asphalt is 5.5 barrels of 42 U.S. gallons per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation gasoline.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt and wax to barrels are given in the definitions for these products.

Barrels Per Calendar Day. See ***Operable Capacity***.

Barrels Per Stream Day. See ***Operable Capacity***.

Bi-Metallic. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of two metals (e.g. platinum, rhenium).

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon. (C4H10). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is covered by ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

> ***Isobutane.*** A normally gaseous branch-chain hydrocarbon, (C4H10). It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. It is extracted from natural gas or refinery gas streams.
>
> ***Normal Butane.*** A normally gaseous straight-chain hydrocarbon, (C4H10). It is a colorless paraffinic gas that boils at a temperature of 31.1 degrees F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C4H8), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil.

Catalytic Hydrocracking. A refining process for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. Hydrocracking is an efficient, relatively low temperature process using hydrogen and a catalyst.

Catalytic Hydrotreating. A process for treating petroleum fractions (e.g. distillate fuel oil and residual oil) and unfinished oils (e.g. naphthas, reformer feeds and heavy gas oils) in the presence of catalysts and substantial quantities of hydrogen to upgrade their quality.

Catalytic Reforming. The use of controlled heat and pressure with catalysts to effect the rearrangement of certain hydrocarbon molecules without altering their composition appreciably; the conversion of low-octane gasoline fractions into higher octane stocks suitable for blending into finished gasoline; also the conversion of naphthas to obtain a more volatile product of higher octane number.

Conventional. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of a metal and a non-metal (e.g. platinum, alumina).

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratifed carbonaceous rocks are either solid or brittle and are highly combustible. In-

cludes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Distillation. The refining process of separating crude oil components by heating and subsequent condensing of the fractions by cooling.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite and oil shale. Drip gases are also included, but topped crude oil (residual) oil and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign according to the following:

> ***Domestic.*** Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 U.S.C. 1331.
>
> ***Foreign.*** Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Delayed Coking. A process to produce low Conradson carbon gas for catalytic cracking feedstock and for gasoline.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

> ***No. 1 Fuel Oil.*** A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 degrees F. at the 10-percent point and 550 degrees F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.
>
> ***No. 2 Fuel Oil.*** A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 specifies for this grade distillation temperatures at the 90-percent point between 540 degrees and 640 degrees F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.
>
> ***No. 1 and No. 2 Diesel Fuel Oils.*** Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D975:
>
>> ***No. 1-D.*** A volatile distillate fuel oil with a boiling range between 300-575 degrees F. and used in high-speed diesel engines generally operated under variations in speed and load. Includes type C–B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.
>>
>> ***No. 2-D.*** A gas oil type distillate of lower volatili with distillation temperatures at the 90-perce point between 540-640 degrees F. for use in hig speed diesel engines generally operated under u form speed and load conditions. Includes Ty R–R diesel fuel used for railroad locomotive e gines, and Type T–T for diesel-engine trucks. Pro erties are defined in ASTM Specification D975.
>
> ***No. 4 Fuel Oil.*** A fuel oil for commercial burner i stallations not equipped with preheating facilities. is used extensively in industrial plants. This grade a blend of distillate fuel oil and residual fuel c stocks that conforms to ASTM Specification D396 Federal Specification VV–F–815C; its kinematic vi cosity is between 5.8 and 26.4 centistokes at 100 d grees F. Also included is No. 4–D, a fuel oil for lo and medium-speed diesel engines that conforms ASTM Specification D975.

Eastern Hemisphere. That half of the earth east of th Atlantic Ocean which includes Europe, Asia, Africa ar Australia. The Hawaiian Foreign Trade Zone is in th hemisphere.

Electric Energy (Purchased). Electricity purchased f refinery operations that is not produced within the r finery complex.

Ethane. A normally gaseous straight-chain hydroca bon, (C_2H_6). It is a colorless paraffinic gas that boils a temperature of −127.48 degrees F. It is extracte from natural gas and refinery gas streams.

Ethylene. An olefinic hydrocarbon, (C_2H_4), recovere from refinery processes or petrochemical processes.

Field Production. Represents crude oil production c leases, natural gas liquids production at natural ga processing plants, and new supply of other hydroca bons and alcohol.

Fluid Coking. A thermal process utilizing the fluidize solids technique for continuous conversion of heav low-grade oils into lighter products.

Gasohol. See ***Motor Gasoline (Finished).***

Gas Oil. A liquid petroleum distillate having a viscosi intermediate between that of kerosene and lubricatin oil. Derives its name from having originally been use in the manufacture of illuminating gas. Now supplie distillate-type fuel oils and diesel fuel, also cracked t produce gasoline.

Gasoline Blending Components. Finished componen in the gasoline range which will be used for blending c compounding into finished aviation or motor gasoline.

Idle Capacity. The component of operable capacity th is not in operation and not under active repairs, bu capable of being placed in operation within 30 day and capacity not in operation but under active repair that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of fo eign crude oil burned as a fuel oil, usually as residu fuel oil, without being processed as such. Importe

crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Isobutane. See ***Butane.***

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule. Used to convert normal butane into isobutane, an alyklation process feedstock, and normal pentane and hexane into isopentane and isohexane, high-octane gasoline components.

Kerosene. A petroleum distillate that boils at a temperature between 300-550 degrees F., that has a flash point higher than 100 degrees F. by ASTM Method D56, that has a gravity range from 40-46 degrees API, and that has a burning point in the range of 150-175 degrees F. Included are the two classifications recognized by ASTM D3699: No. 1-K and No. 2-K, and all grades of keresene called range or stove oil which have properties similar to No. 1 fuel oil, but with a gravity of about 43 degrees API and a maximum end-point of 625 degrees F. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with an average gravity of 40.7 degrees API, and a 10 percent distillation temperature of 400 degrees F. It is covered by ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type; it is used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and nonassociated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Liquefied Petroleum Gases (LPG). Ethane, Ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/ or refrigeration they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane. Excludes still gas used for chemical or rubber manufacture which is reported as a petrochemical feedstock and also excludes liquefied petroleum gases intended for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstock or other uses.

Lubricating Oils. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include:

Bright Stock. A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.

Neutral. A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100 degrees F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.

Other. A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere, e.g., petrolatum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, speciality oils and medicinal oils.

Motor Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Specifications for motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, include a boiling range of 122-158 degrees F. at the 10-percent point to 365-374 degrees F. at the 90-percent point and a Reid vapor pressure range from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blend stock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol) in which 10 percent or more of the product is alcohol.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range with an average gravity of 52.8 degrees API and 20 to 90 percent distillation temperatures of 290 degrees to 470 degrees F, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specification of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: Ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e. products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C5H12), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Normal Butane. See ***Butane.***

OPEC. The acronym for the Organization of Petroleum Exporting Countries, oil-producing and exporting countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation, and not under active repairs but capable of being placed in operation within 30 days; or not in operation but under active repairs that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed in an atmospheric distillation facility during a twenty-four h period after making allowances for the following li tations:

The capability of downstream facilities to abs the output of crude oil processing facilities of a g en refinery. No reduction is made when a plann distribution of intermediate streams through oth than downstream facilities is part of a refiner normal operation.

The types and grades of inputs to be processed.

The types and grades of products expected to manufactured.

The environmental constraints associated with finery operations.

The reduction of capacity for scheduled downti such as routine inspection, mechanical problem maintenance, repairs and turnaround.

The reduction of capacity for unscheduled dow time such as mechanical problems, repairs, a slowdowns.

Barrels Per Stream Day. The amount a unit can pr ess running at full capacity under optimal crude a product slate conditions.

Operating Capacity. The component of operable cap ity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refine and consumed as raw materials. Includes hydroge coal tar derivatives, gilsonite, and natural gas receiv by the refinery for reforming into hydrogen. Natural g to be used as fuel is excluded.

Pentanes Plus. A mixture of hydrocarbons, mostly pe tanes and heavier, extracted from natural gas. Includ isopentane, natural gasoline and plant condensate.

Petrochemical Feedstock Use. Chemical feedstoc derived from petroleum, principally for the manufactu of chemicals, synthetic rubber and a variety of plastic The categories reported are "Naphtha-Less than 4 degrees F. end-point" and "Other oils over 400 degre F. end point."

Naphtha-Less Than 400 Degrees F. End-Point. naphtha with an end point of less than 400 degrees that is intended for use as a petrochemical fee stock.

Other Oils-Over 400 Degrees F. End-Point. Oils wit an end point over 400 degrees F. that is intended f use as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the co densation process in cracking. This product is reporte as marketable coke or catalyst coke. The conversio factor is 5 barrels of 42 U.S. gallons per short ton.

Marketable Coke. Those grades of coke produced i delayed or fluid cokers which may be recovered a relatively pure carbon. This "green" coke may be sol as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (i.e., catalytic cracking) carbon is deposited on the catalyst thus, deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refinery process. This carbon or coke is not recoverable in a concentrated form.

etroleum Products. Petroleum products are obtained om the processing of crude oil (including lease conensate), natural gas and other hydrocarbon comounds. Petroleum products include unfinished oils, quefied petroleum gases, pentanes plus, aviation asoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual iel oil, naphtha less than 400 F. end-point, other oils-ver 400 F. end-point, special naphthas, lubricants, axes, petroleum coke, asphalt, road oil, still gas, and iscellaneous products.

etroleum Refinery. An installation that manufacturers nished petroleum products from crude oil, unfinished ils, natural gas liquids, other hydrocarbons, and alcool.

lant Condensate. One of the natural gas liquids, most- pentanes and heavier hydrocarbons, recovered and eparated as liquids at gas inlet separators or scruber in processing plants.

rimary Stocks. Stocks of crude oil or petroleum prodcts held in storage at (or in) leases, refineries, natural as processing plants, pipelines, tankfarms, and bulk erminals that can store at least 50,000 barrels of petroeum products or that can receive petroleum products y tanker, barge, or pipeline. Crude oil that is in transit rom Alaska, or that is stored on Federal leases or in the trategic Petroleum Reserve is included. Primary tocks excludes stocks of foreign origin that are held n bonded warehouse storage.

ropane. A normally gaseous straight-chain hydrocaron, (C3H8). It is a colorless paraffinic gas that boils at temperature of -43.67 degrees F. It is extracted from atural gas or refinery gas streams. It includes all prodcts covered by Gas Processors Association Specificaions for commercial propane and HD-5 propane and STM Specification D1835.

ropylene. An olefinic hydrocarbon, (C3H6), recovered rom refinery processes or petrochemical processes.

esidual Fuel Oil. The topped crude of refinery opertions which includes No. 5 and No. 6 fuel oils as deined in ASTM Specification D396 and Federal Specifiation VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendnent 2 (NATO Symbol F-77), and Bunker C fuel oil. Reidual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various indusrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

oad Oil. Any heavy petroleum oil, including residual sphaltic oil used as a dust pallative and surface treatnent on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Special Naphthas. All finished products within the gasoline range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point and have a boiling range of 90 degrees to 220 degrees F. "Special naphthas" includes all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and/or refinery fuel use.

> ***Petrochemical Feedstock Use.*** Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc. are considered petrochemical products; therefore, only their feedstock equivalents are included.
>
> ***Fuel Use.*** All other still gas.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking is used to increase the yield of gasoline obtainable from crude oil.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid-being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal cracking process in which heavy vacuum-still bottoms produced on the primary distillation unit are cracked to increase production of distillate products.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series pre-

dominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42-U.S. gallon barrel.

> ***Microcrystalline Wax.*** Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics:
>
> > Penetration at 77 degrees F. (D1321)-60 maximum. Viscosity at 210 degrees F. in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.

> ***Crystalline-Fully Refined Wax.*** A light-colored par fin wax having the following characteristics:
>
> > Viscosity at 210 degrees F. (D88)-59.9 SUS (10. centistokes) maximum. Oil Content (D721)-0.5 pe cent maximum. Other +20 color, Saybolt mi mum.
>
> ***Crystalline-Other Wax.*** A paraffin wax having the fo lowing characteristics:
>
> > Viscosity at 210 degrees F. (D88)-59.9 SUS (10. centistokes) maximum. Oil Content (D721)-0. percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that i cludes North and South America and adjacent islands.

Bureau of Mines Petroleum Refining Districts and PAD Districts

The following are the Bureau of Mines petroleum refining districts which make up the PAD districts:

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian #1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

PAD District II

Appalachian #2: The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

Indiana—Illinois—Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

Minnesota—Wisconsin—North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma—Kansas—Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana—Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

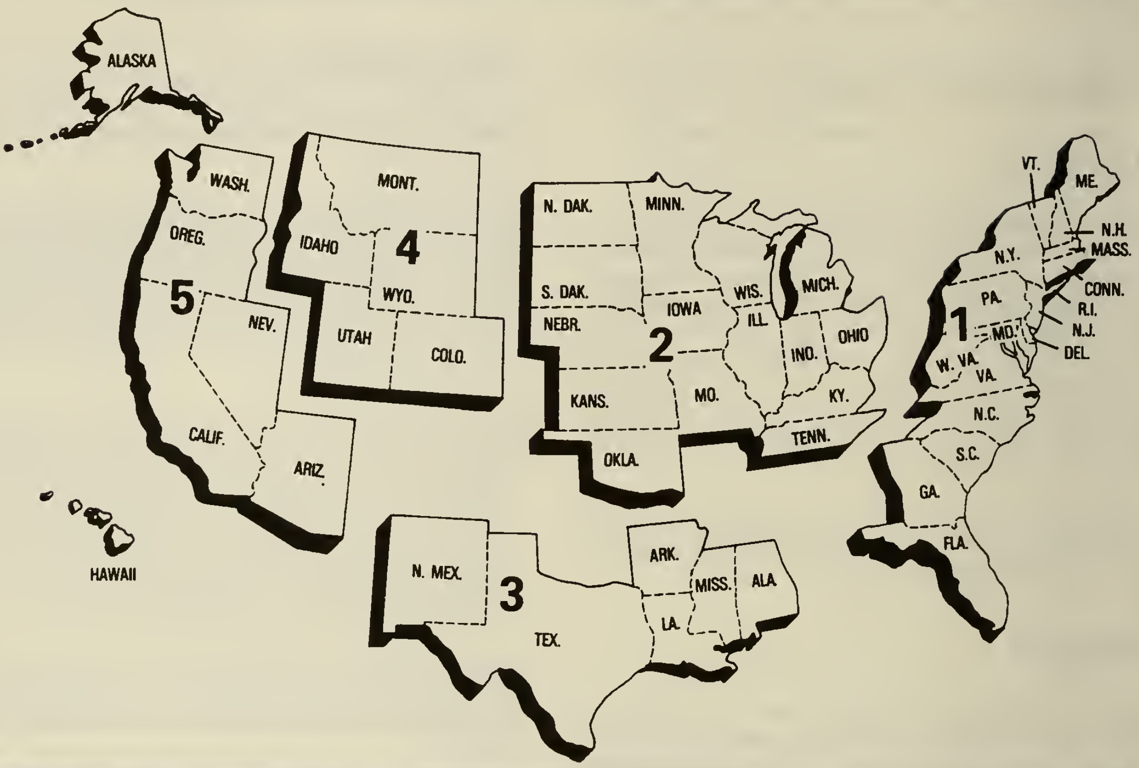
PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

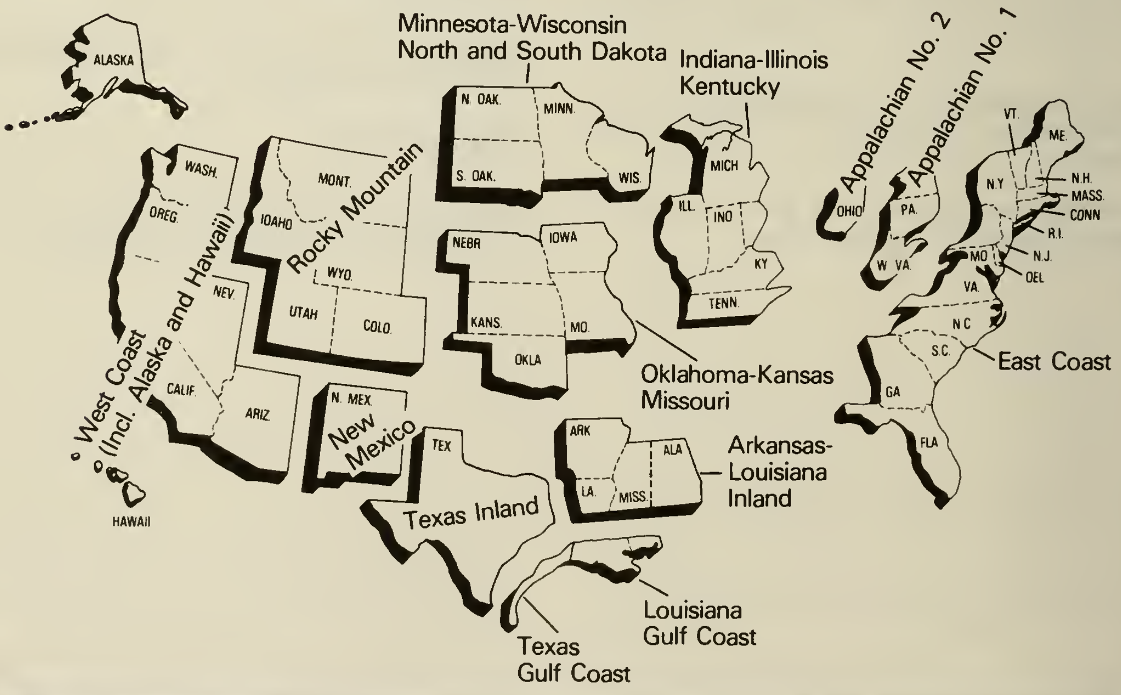
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

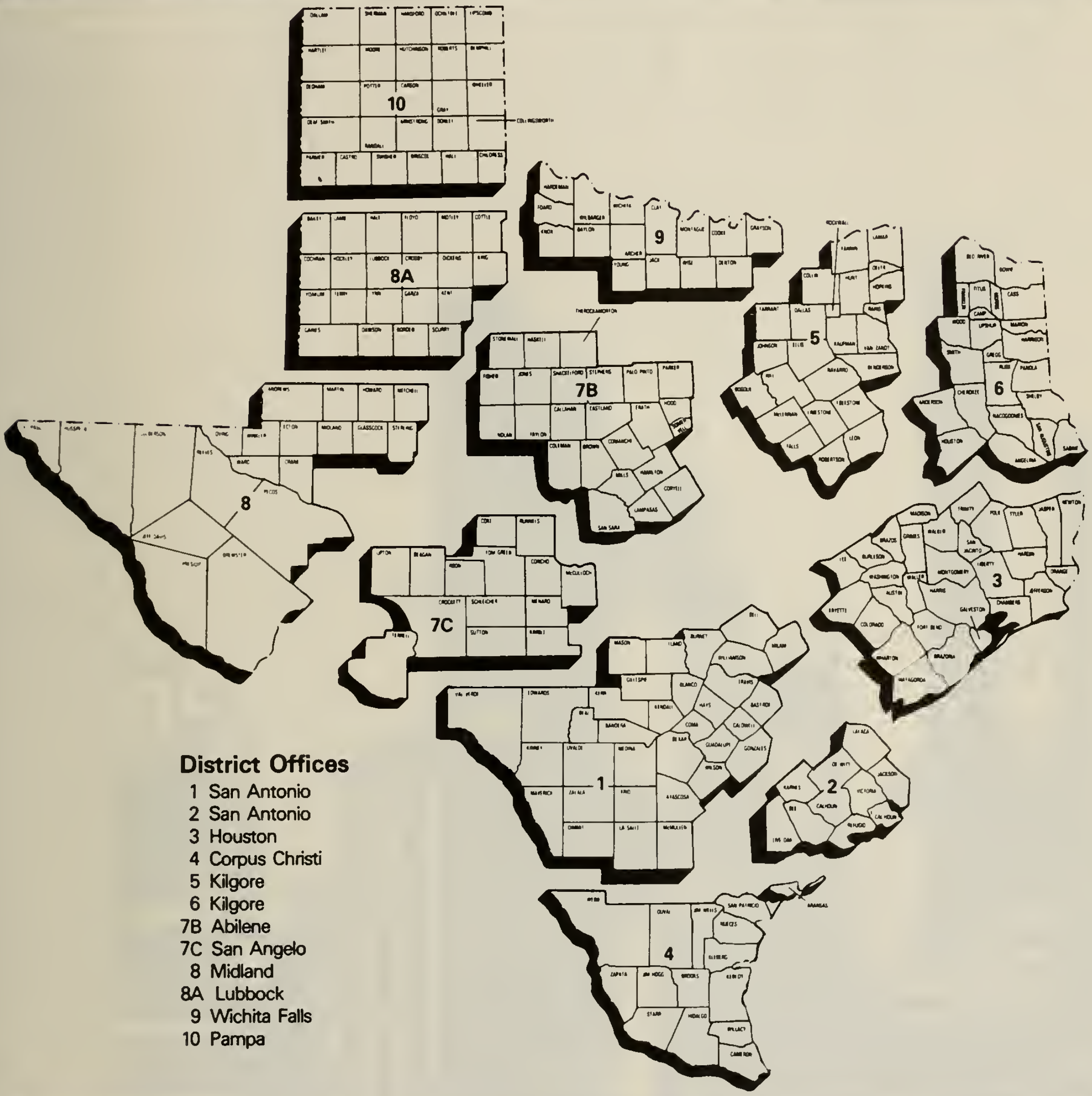
Petroleum Administration for Defense (PAD) Districts



Bureau of Mines Refining Districts

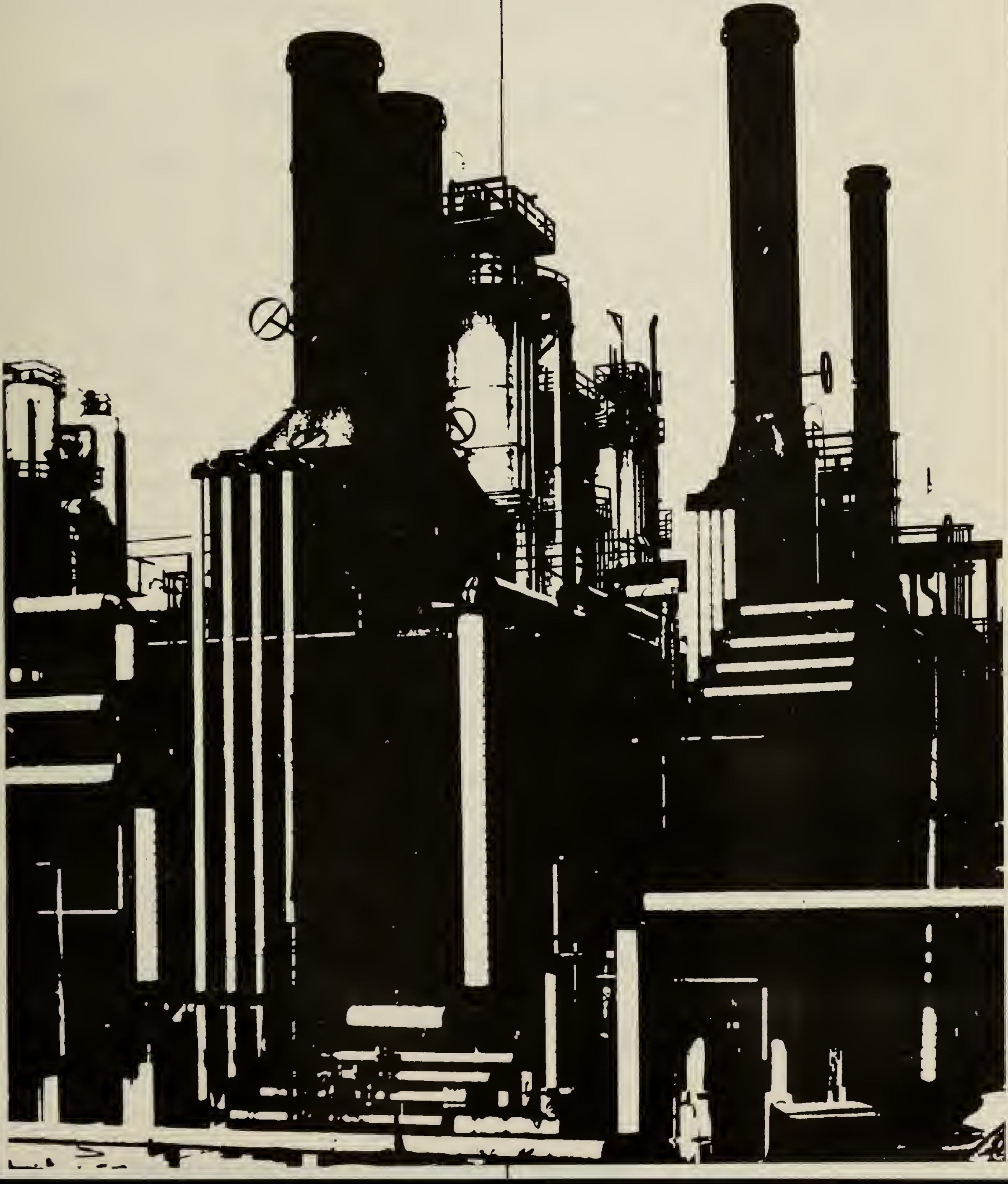


District Map Oil and Gas Division Railroad Commission of Texas



District Offices
1 San Antonio
2 San Antonio
3 Houston
4 Corpus Christi
5 Kilgore
6 Kilgore
7B Abilene
7C San Angelo
8 Midland
8A Lubbock
9 Wichita Falls
10 Pampa

Explanatory Notes



Explanatory Notes

Note 1: Data Collection Methodology

Background

Beginning in January 1983, the Energy Information Administration (EIA) unified its petroleum supply data collection activities into the Petroleum Supply Reporting System (PSRS). The PSRS represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The primary focus of the consolidation has been to revise the weekly and monthly survey reporting forms to assure consistency in form layout, preparation instructions, and definitions. As a result, a new set of survey forms were implemented in January 1983. The following are the new form numbers and their corresponding predecessor forms:

New Form Number	Name	Old Form Number
EIA-800	Weekly Refinery Report	EIA-161
EIA-801	Weekly Bulk Terminal Report	EIA-162
EIA-802	Weekly Product Pipeline Report	EIA-163
EIA-803	Weekly Crude Oil Stocks Report	EIA-164
EIA-804	Weekly Imports Report	EIA-165
EIA-805	Weekly Shipments from Puerto Rico to the United States Report	—
EIA-810	Monthly Refinery Report	EIA-87
EIA-811	Monthly Bulk Terminal Report	EIA-88
EIA-812	Monthly Product Pipeline Report	EIA-89
EIA-813	Monthly Crude Oil Report	EIA-90
ERA-60	Monthly Imports Report	ERA-60
EIA-815	Monthly Shipments from Puerto Rico to the United States Report	FEA-P133-M-0
EIA-816	Monthly Natural Gas Liquids Report	EIA-64
EIA-817	Monthly Tanker and Barge Movement Report	EIA-170

Forms EIA-800 through 805 comprise the Weekly Petroleum Supply Reporting System (WPSRS). This system is designed to collect basic refinery operations and product stock data for major products on a weekly basis. Data from the WPSRS are published in the *Weekly Petroleum Status Report (WPSR)* and are also used to calculate the preliminary statistics in the "Summary Statistics" section of the *Petroleum Supply Monthly (PSM)*. A description of the WPSRS survey forms follows in Note 1.1.

Forms EIA-810-813, 815-817 and ERA-60 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery operations data, refinery, bulk terminal and pipeline stocks data, crude oil and petroleum product imports data and movements of petroleum products and crude oil between PAD Districts data. These surveys are the primary source of data for the "Summary Statistics" and "Detailed Statistics" sections of the *PSM*. A description of MPSRS survey forms follows in Note 1.2.

Data are also obtained in magnetic tape form from the Bureau of the Census on a monthly basis. These tapes contain aggregated import and export statistics that are used in the preparation of the *PSM*. A description of the Census data follows in Note 1.3.

Note 1.1: Weekly Petroleum Supply Reporting System (WPSRS)

Background

The EIA first began publishing weekly petroleum supply statistics in April 1979 in response to the Iranian oil crisis. Initially, the published data were taken from the American Petroleum Institute (API) *Weekly Statistical Bulletin*. However, in January 1980 the EIA began to publish weekly statistics from its own surveys, with the exception of imports statistics which the EIA did not begin collecting until June 1980.

The weekly surveys collect data comparable to those collected on a monthly basis. Selected petroleum companies report weekly data to the EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports each shipment entering the United States. On Form EIA-805, a company shipping unfinished oils and finished petroleum products into the United States from Puerto Rico reports each shipment. Current weekly data and the most recent monthly data are used to estimate the totals that are published in the *Weekly Petroleum Status Report.*

Sample Frame

The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Sampled companies report data only for facilities in the 50 States and District of Columbia.

The sample for each survey is taken from the following universe:

EIA-800: Based on the EIA-810 universe, which includes all petroleum refineries in the United States and

its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and plants that produce finished motor gasoline through mechanical blending. The selected sample size is 215.

EIA-801: Based on the EIA-811 universe, which includes all bulk terminal facilities in the United States and its territories that have either a total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The selected sample size is 93.

EIA-802: Based on the EIA-812 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that transport only natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies that transport products covered in the weekly survey are included. The selected sample size is 65.

EIA-803: Based on the EIA-813 universe, which consists of all companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-804: Based on the ERA-60 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico. The selected sample size is 65.

EIA-805: Based on the EIA-815 universe, which includes all shippers of unfinished oils and petroleum products into the United States from Puerto Rico. Four companies report.

Sampling Method

The cut-off method is the sampling procedure used for all weekly surveys except the EIA-802, which uses the monthly universe in its entirety. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous 12-month period. Companies are chosen for the sampling, beginning with the largest and adding companies until the total sample covers 90 percent of the total for the previous time period for each product published in the *Weekly Petroleum Status Report.*

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. The report period closes each Friday at 7 a.m. All canvassed firms and terminal operations companies must file by 5 p.m. on the following Monday.

Estimation and Imputation

After company reports have been checked and entere into the weekly data base, weekly totals for given proc ucts are estimated by using the following formula.

The total reported by all companies for the most recer month (M_t) is divided by the amount reported by th sample of companies for the most recent month (M_s The result is multiplied by the amount reported by th sample of companies for the current week (W_s). The ar swer, W_t, is an estimate of the amount that would hav been reported by all companies for the current week all companies reported each week.

$$W_t = \frac{M_t}{M_s}(W_s)$$

This procedure is used to estimate total weekly input to refineries and production.

To estimate stocks of finished products, the precedin procedure is followed separately for refineries, bulk te minals, and pipelines. Total estimates are formed b summing over establishment types.

Weekly imports data are highly variable on a company by-company basis or a week-by-week basis. Therefore an exponentially smoothed ratio has been developec The estimate of weekly imports is the sum of th smoothed ratio multiplied by the weekly values and es timates for shipments from Puerto Rico. Imports c other oils includes an adjustment from Census data fc unlicensed products because of coverage difference between the monthly imports data and Census data.

Explicit imputation is done for companies which do nc respond in a given week. The imputed values are expc nentially smoothed means of recent reports from th specific company.

Response Rates

The response rate for the published estimates is usua ly between 95 and 98 percent.

Note 1.2: Monthly Petroleum Supply Reporting System (MPSRS)

Background

The MPSRS was implemented in January 1983 as the r sult of an extensive effort to integrate the collectio and processing of petroleum supply data that hav been collected on other survey forms for many years The collection of monthly petroleum supply statistic began as early as 1918 when the Bureau of Mines (BOM began collecting data on refinery operations and crud oil stocks and movements. The collection system

were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movements of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS is the first effort to make them all consistent and comparable.

Respondent Frame

EIA-810: All petroleum refineries and plants that produce finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, the Hawaiian Foreign Trade Zone, and Guam. Approximately 313 respondents report on the EIA-810.

EIA-811: All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have a total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline, regardless of ownership of the material. Approximately 328 respondents report on the EIA-811.

EIA-812: All products pipeline companies that carry petroleum products (including interstate, intrastate and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 94 respondents report on the EIA-812.

EIA-813: All companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-815: All licensed importers and importers of record shipping petroleum products from Puerto Rico into the 50 States and the District of Columbia.

Import data from the ERA-60 and EIA-815 are integrated into the import statistics reported in the *PSM*.

EIA-816: All operators of facilities designed to extract liquid hydrocarbons from natural gas stream (natural gas processing plants) or to separate a hydrocarbon stream into its component products, i.e., propane, butane, natural gasoline, etc. (fractionators). Approximately 990 respondents report on the EIA-816.

EIA-817: All known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are about 50 respondents.

ERA-60: All licensed importers and importers of record importing crude oil and petroleum products into the United States and Puerto Rico. The respondent universe consisted of approximately 1,100 firms as of July 31, 1982. However, only a selected 250 importers must report each month regardless of import activity. All others must report only for a month in which they actually had imports. The respondent universe for this survey is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

EIA utilizes a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review industry publications such as the *Oil and Gas Journal* and *LP Gas Almanac* for information on facilities or companies going into operation or closing down. These are augmented by articles in newspapers, letters from respondents indicating changes in status and information received from survey systems operated by other offices.

Periodically an extensive survey study is conducted to completely refresh the frames. This involves consolidating information from every known source including State agencies, federal agencies (e.g., EPA, Corps of Engineers, Census Bureau, etc.), and private industry directories. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Completed forms are required to be postmarked by the 20th day following the end of the report month, with the exception of the EIA-815 and ERA-60 which are due 15 work days following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline, for their data. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed only for nonresponding companies that submitted reports the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by submission of actual data. Data for nonrespondents on the EIA-815 and 817, and ERA-60 are not imputed.

Response Rates

As of the filing deadline, the response rates of the EIA-810 through EIA-813 respondents is over 90 per-

cent. The response rate for the EIA-816 is over 85 percent and for the EIA-817 it is 98 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Names of companies that fail to file for 2 consecutive months are forwarded for further noncompliance action.

In July 1983, the ERA-60 survey had a response rate of 99.9 percent by the filing deadline. The universe was 1,100 firms at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard follow-up of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. In addition, response is cross-checked with response on the Petroleum Licensing Decrementation System (PLDS), a listing of each month's importers. The response rate is generally 98 to 99 percent by the time the data are first published.

Note 1.3: Census Import (IM-145) and Export (EM-522 and EM-594) Data

Background

Each month the EIA purchases magnetic tapes of aggregated import and export statistics from the Bureau of the Census. These data provide the only source of export statistics and are used to augment the import data collected by the EIA. Export statistics and import data from the Census tapes on liquefied petroleum gases and bonded ship bunkers are published in the *PSM*.

Import Statistics (IM-145)

Coverage

The import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise in-transit through the United States, when documented with Customs as an in-transit movement.

2. Shipments from anywhere to U.S. possessions and shipments from U.S. possessions to the United States. (U.S. possessions include Puerto Rico, the Virgin Islands, Guam, and American Samoa.)

3. U.S. merchandise that was held in foreign countries by the U.S. Armed Forces and is returned to the United States for the use of the Armed Forces.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501, 7505, and 7506).

Imported petroleum is reported as *Imports for Consumption*. Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics (EM-522 and EM-594)

Coverage

The export statistics reflect both government and nongovernment exports of domestic and foreign merchandise from the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. All shipments from U.S. possessions, regardless of whether the shipments are sent to the United States, to other U.S. possessions, or to foreign countries.

2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.

3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Exporters are required to file Shipper's Export Declarations with Custom's officials. The only exceptions are those exporters who have been authorized to submit data directly to the Bureau of Census on magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations.

Country and Area of Destination

The country of destination is defined as the country of ltimate destination or the country where the goods are o be consumed, further processed, or manufactured, s known to the shipper at the time of exportation. If he shipper does not know the country of ultimate des- ination, the shipment is credited to the last country to hich the shipper knows that the merchandise will be hipped in the same form as it was when exported.

Note 2: Supply

The components of petroleum supply are field produc- ion, refinery production, imports, and stock withdrawal r addition:

ield Production is the sum of crude oil production (in- luding lease condensate), natural gas processing lant production, and new supply (field production) of ther liquids used by refineries.

Crude oil production is estimated based on data re- eived from State conservation and revenue agencies. or further explanation, see Explanatory Note 3.

ield production of natural gas plant liquids (NGPL), in- luding finished petroleum products, is reported onthly on survey Form EIA-816, *Monthly Natural Gas iquids Report*. Negative production will occur when he amount of a product produced during the month is ess than the amount of that same product that is re- rocessed (input) or reclassified to become another roduct during the same month. For survey description nd other detail, see Explanatory Note 1.2.

efinery Production of petroleum products is reported onthly on survey Form EIA-810, *Monthly Refinery Re- ort*. Published production of these products equals re- inery production minus refinery input. Refinery pro- uction of unfinished oils and of motor and aviation asoline blending components appears on a net basis nder refinery input. Negative production will occur hen the amount of a product produced during the onth is less than the amount of that same product hat is reprocessed (input) or reclassified to become an- ther product during the same month.

mports of crude oil and petroleum products are re- orted monthly on Form ERA-60, *Report of Oil Imports nto the United States and Puerto Rico*, and Form IA-815, *Shipments of Refined Products (Including Un- inished Oils) from Puerto Rico to the United States*. In ddition, the Census Bureau Tabulation IM-145 sum- arizes import data from Customs import declarations eported on Customs Forms 7501, 7505, and 7506. The ost prominent difference between the EIA and Cen- us systems appears in imports of liquefied petroleum gases (LPG), where the Census data show a much higher level of imports than EIA data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and LPGs are not licensed products. Therefore, respondents that import only LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha- and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

Stock Withdrawal (+) or Addition (−) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the same month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (−) would represent a buildup of stocks and a reduction in the amount of petroleum supplies distributed for domestic consumption. For a description of survey forms used to make stock withdrawal or addition calculations see Explanatory Note 5.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition.

Crude oil supply is the sum of field production, imports and stock withdrawals or additions. Crude oil disposition is the sum of exports, refinery input, losses and product supplied. Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used.

Note 3: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the State conservation agencies, which collect crude oil production values for tax purposes. The U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of ten State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports

from the State conservation agencies and the U.S. Geological Survey. The ten States that do not report monthly values are Indiana, Kentucky, Missouri, Arkansas, Utah, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly COPS information becomes available. Table 11 of this publication provides information on crude oil production for the most recent month for which COPS values are available. In order to present more timely crude oil production values, the EIA's Dallas Field Office prepares a series of State level estimates which are based on historical production patterns and are summed to obtain the monthly crude oil production values shown in the summary statistics of this publication.

The individual State level estimates are either exponential curve fitted projections based on recent data or are constant level projections based on the average production rate during a recent time period. In some cases, adjustments are made to these estimates based on additional information on expected changes in production rates supplied by a State agency, a trade association, or an individual field operator.

Note 4: Disposition

The components of petroleum disposition are crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Crude Oil Losses is the sum of crude oil losses at refineries. Crude oil losses at refineries are reported on Form EIA-810, *Refinery Report*.

Refinery Inputs of crude oil, natural gas plant liquids, and other liquids are reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published inputs of unfinished oils and of motor and aviation gasoline blending components equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-810, by refineries located in these places.

Product Supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, minus crude oil losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) data were misreported or reported late, (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel oil. These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel oil were reported as either distillate or residual fuel oil and included in product supplied for these products.

Note 5: Stocks

Primary stocks of crude oil are the sum of endin stocks reported monthly on Form EIA-810, *Monthly Refinery Report*, and on Form EIA-813, *Monthly Crude Oi Report*. Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaska crude oil in transit is also included. Stocks of crude oi are also reported weekly on Form EIA-800, *Weekly Refinery Report*, and on Form EIA-803, *Weekly Crude Oi Stocks Report*. Primary stocks of petroleum product are summed from data reported on Form EIA-816 *Monthly Natural Gas Liquids Report*, Form EIA-810 *Monthly Refinery Report*, Form EIA-811, *Monthly Bul Terminal Report*, and on Form EIA-812, *Monthly Product Pipeline Report*. Primary stocks of petroleum products do not include either secondary stocks held b dealers and jobbers or stocks held by consumers Petroleum product stocks are also reported weekly o Form EIA-800, *Weekly Refinery Report*, Form EIA-801 *Weekly Bulk Terminal Report*, and Form EIA-802 *Weekly Crude Oil Stocks Report*. For survey descriptions and other details, see Explanatory Notes 1.1 - 1.3.

Note 6: Average Stock Levels

The graphs displaying monthly stock levels of crude oi motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases, and other products provide th user with recent data as well as a summary of data fro January through December or from July through Jun for the most recent 3-year period. This summary take the form of an *average range* that includes season variation determined from a longer time period. Th

erage range represents the historical pattern; it is not
forecast.

ese curves are updated semiannually (On April 1 and
ctober 1), by basing the *average ranges* on a more re-
ent time period. Each 3-year data series is adjusted by
opping the first 6 months and including the most re-
ent 6 months.

r each data series, the monthly seasonal factors are
timated by means of a seasonal adjustment tech-
que developed at the Bureau of the Census (Census
-11). The seasonal factors are assumed to be stable
e., unchanging from year to year) and additive. The se-
s is deseasonalized by subtracting the seasonal fac-
r for the appropriate month from the reported stock
vels. The intent of deseasonalization is to remove
ly seasonal variation from the data. Thus, a desea-
nalized series would contain the same trends and ir-
gularities as the original data. For crude oil stocks,
e derived seasonal factors are very small relative to
ude oil stock levels. Therefore, the seasonal factors
r distillate fuel oil, residual fuel oil, liquefied petro-
um gases and other products are derived using
onthly data from 1974-1980. For motor gasoline, the
asonal factors are based on monthly data from 1975,
76, 1978, 1979 and 1980. In 1977, there was virtually
seasonal behavior in motor gasoline stocks. Month-
stock levels stayed at the same high level for the en-
e year. In addition, the seasonal patterns in 1973,
74 and 1977 were not representative of the recent
st, and these years were not used in the determina-
on of seasonal patterns for motor gasoline stocks. Be-
use of these differences in the year-to-year seasonal
ctuation of motor gasoline, the evidence for the illus-
ted seasonal patterns for crude oil, distillate fuel oil,
sidual fuel oil, liquefied petroleum gases and other
oducts is stronger than is the evidence for the illus-
ted seasonal patterns for motor gasoline.

some cases, these seasonal patterns do not show a
nooth transition from month to month. For example,
e June factor for residual fuel oil is slightly less than
e May and July values, making a bump in the curve.
there is little difference in the magnitude of these
asonal factors, it is possible that this variation is due
the small number of observations (7 years) and the
ta variability.

ter seasonal factors are derived, the most recent 3-
ar period (from January through December or from
ly through June) is deseasonalized. The average of
e deseasonalized 36-month series determines the
dpoint of the deseasonalized average band. The stan-
rd error of the deseasonalized 36 months is calcu-
ed adjusting for extreme data points. The width of
e *average range* is twice this standard error.

e upper curve of the *average range* is defined as the
erage plus the seasonal factors plus the standard
or. The lower curve is defined as the average plus the
asonal factors minus the standard error.

Note 7: Movements

Movements of crude oil between PAD Districts are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Petroleum product movements are reported on Forms EIA-817, *Monthly Tanker and Barge Movement Report*, and EIA-812, *Monthly Product Pipeline Report*. Net receipts is the difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge. For survey descriptions and other detail, see Explanatory Note 1.2.

Note 8: Preliminary Monthly Statistics

Weekly data (Forms EIA-800, 801, 802, 803, and 804) are used to estimate the most recent monthly values for the *Summary Statistics* section. Since some of the weekly reporting periods overlap two adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To estimate crude oil and petroleum product imports, crude oil input to refineries and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel oil, and residual fuel oil) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the two weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of the earlier of the two weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 3.

Note 9: Notes on Tables

Note 9.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (−), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.

- Natural Gas Plant Production is the sum of Natural Gas Liquids and Finished Petroleum Products Field Production in Table 4.

- Petroleum Products Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.

- Total Crude Oil and Petroleum Products Ending Stocks appear in thousand barrels in Table 2.

Note 9.2 Crude Oil Supply and Disposition statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (−), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.

- Crude Losses and Product Supplied appear as labeled in Table 4.

- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousand barrels in Table 1.

- Total Crude Oil Ending Stocks appear in thousand barrels in Table 2.

- Total Imports appear in Table 4.

Note 9.3 Finished Motor Gasoline Supply and **Disposition** statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (−), Exports, and Product Supplied appear as labeled in Table 4.

- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.4 Distillate and Residual Fuel Oil Supply and **Disposition** statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (−), Exports, and Product Supplied appear as labeled in Table 4.

- Ending Stocks appear in thousand barrels in Tabl
2.

**Note 9.5 Liquefied Petroleum Gases Supply and Di
position** statistics represent the aggregation of stati
tics on ethane, propane, butane, butane-propane mi
tures, ethane-propane mixtures, and isobutane. Th
statistics on the referenced line appear in Table 4 of th
Detailed Statistics, except where noted.

- Total Production is the sum of Field Production an
Refinery Production in Table 4.

- Imports, Stocks Withdrawal (+) or Addition (−), R
finery Inputs, Exports, and Product Supplied appe
as labeled in Table 4.

- Ending stocks appear in thousand barrels in Tab
2.

**Note 9.6 Other Petroleum Products Supply and Di
position** statistics represent the aggregation of stati
tics on natural gasoline, isopentane, unfractionate
stream, plant condensate, other liquids, and all finishe
petroleum products except finished motor gasolin
distillate fuel oil, and residual fuel oil. The statistics c
the referenced line are aggregated from Table 4 of th
Detailed Statistics, except where noted.

- Total Production is the aggregated sum of Fiel
Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (−), R
finery Inputs, Exports, and Product Supplied are a
gregated from Table 4.

- Ending stocks are aggregated from ending stoc
in thousand barrels in Table 2.

Note 9.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3): Crude oil (including lease co
densate) production for *Alaska*, *Lower 48 States*, an
Total U.S. are calculated by calling the conservatio
agency in Alaska for Alaskan crude oil productio
during the month, estimating crude oil production i
the United States (see Explanatory Note 3), and ta
ing the difference to equal production in the Lower 4
States.

- Line (5): *SPR Imports* are reported on Survey For
ERA-60.

- Line (12): *Total Other Sources* equals crude c
stock withdrawal (+) or addition (−) plus una
counted for crude oil minus crude losses in Table 2.

- Line (14): Natural gas plant liquids (NGPL) *Produ
tion* equals field production of natural gas liquid
(NGL) plus field production of finished petroleu
products in Table 2.

- Line (15): NGPL *Imports* equals the sum of the in

ports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.

- Line (16): NGPL *Stock Withdrawal (+) or Addition (−)* is equal to the sum of stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.

- Line (17) equals the sum of lines (14), (15), and (16).

- Line (18): Unfinished oils and gasoline blending components *Stock Withdrawal (+) or Addition (−)* equals stock withdrawal (+) or addition (−) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.

- Line (20): *Other Hydrocarbons and Alcohol New Supply* equals the field production of same in Table 2.

- Line (21): *Refinery Processing Gain* is a balancing item equal to total refinery production minus total refinery input in Table 2.

- Line (23): *Total Other Liquids* equals the sum of lines (18) through (22).

- Line (24): *Total Production of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil product supplied in Table 2.

- Line (25): *Gross Imports of Refined Products* equals imports of LPG plus imports of finished petroleum products in Table 2.

- Line (26): *Exports of Refined Products* equals exports of LPG plus exports of finished petroleum products in Table 2.

- Line (27): *Net Imports of Refined Products* equals the difference between lines (25) and (26).

- Line (28): *Total New Supply of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; minus crude oil product supplied plus imports of LPG and finished petroleum products; minus exports of LPG and finished petroleum products in Table 2.

- Line (29): *Refined Products Stocks Withdrawal (+) or Addition (−)* equals the sum of stock withdrawal (+) or addition (−) for LPG and finished petroleum products in Table 2.

- Line (30): *Total Petroleum Products Supplied for Domestic Use* equals total products supplied in Table 2.

- Lines (31) through (35) equal the respective products supplied in Table 2.

- Line (36): *Other Products Supplied* equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock use, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, unfinished oils, motor gasoline blending components, aviation gasoline blending components and miscellaneous products supplied in Table 2.

- Line (37): *Total Product Supplied* is equal to total products supplied in Table 2.

- The sum of lines (38) and (39), stocks of *Crude Oil and Lease Condensate (Excluding SPR)* and stocks held by the *Strategic Petroleum Reserve*, equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-813.

- Line (43): stocks of *Refined Products*, equals the sum of LPG and finished petroleum product stocks in Table 2.

Note 10: New Stock Basis

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,420; and 1982 - 1,462.

- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).

- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.

- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.

- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.

- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.

- Stock withdrawal calculations beginning in 1975, 1981, 1983 were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Products Supply and Disposition" table in the Summary Statistics, is now reported on a component basis (ethane, propane, normal butane, isobutane and pentanes plus). Most of these stocks will now appear in the "Liquefied Petroleum Gases Supply and Disposition" table of the Summary Statistics. This change will affect stocks reported and stock withdrawals in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 1983 - 108

- Other Petroleum Products: 1983 - 248

Note 11: Stocks of Alaskan Crude Oil

Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 12: Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting systems.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings throughout 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. This difference increased to about 4 percent in 1979 and 5 percent in 1980. There are two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference—in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied. EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years. EIA has recently published a study of the quality of these FHWA data.[1]

---

[1] Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *Error Profile of the Motor Fuel Taxation Data used to Establish and Monitor State Emergency Conservation Targets* (Washington, D.C: December, 1981).

inished Motor Gasoline Product Supplied on Old and New Basis Thousand Barrels per Day)

	1979				1980			
	EIA Reported	API Recast	EIA Recast	FHWA[1]	EIA Reported	API Recast	EIA Recast	FHWA[1]
Jan	6,830	7,230	7,084-7,246	6,984	6,323	6,789	6,630-6,791	6,672
eb	7,254	7,496	7,389-7,568	7,538	6,596	6,983	6,831-7,003	6,830
Mar	7,229	7,414	7,301-7,463	7,316	6,406	6,753	6,607-6,768	6,713
Apr	7,055	7,300	7,187-7,353	7,375	6,800	7,014	6,886-7,052	6,981
May	7,213	7,429	7,313-7,475	7,428	6,729	6,954	6,823-6,984	7,044
lun	7,191	7,483	7,350-7,516	7,441	6,657	6,966	6,824-6,991	7,049
lul	6,902	7,241	7,105-7,266	7,299	6,743	6,973	6,960	7,132
Aug	7,330	7,546	7,426-7,588	7,619	6,648	6,841	6,828	7,090
Sep	6,881	7,122	7,016-7,262	7,232	6,510	6,692	6,962	6,685
Nov	6,791	7,068	6,956-7,122	7,142	6,234	6,507	6,516	6,951
Dec	6,730	7,106	6,966-7,127	7,064	6,632	6,948	6,936	6,993
Average	7,034	7,302	7,183-7,347	7,309	6,579	6,882	6,806-6,889	6,925

HWA gasoline statistics published in their 1979 Table MF-33G, 08-06-80, contain aviation gasoline as well as motor gasoline. Only otor gasoline data are included in published 1980 data. Consequently, the 1979 data shown above were reduced by subtracting iation gasoline product supplied quantities as published by EIA in the 1979 *Petroleum Statement Annual*. The 1980 FHWA data blished in their 1980 Table MF-33GA, August 1981, did not require this adjustment.

istillate and Residual Fuel Oil

istillate and residual fuel oil refinery production sta- stics through 1980 were adjusted to account for an im- alance between unfinished oil supply and disposition. he reported quantities of refinery inputs of unfinished ils typically exceed the available supply of unfinished ils. It has been assumed that this occurs when distil- te and residual fuel oil produced by a refinery is hipped to another refinery, where it is treated as unfin- hed oil. This oil is then reprocessed rather than used sold as distillate or residual fuel oil.

or many years (including 1980), the difference be- veen unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981 this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1980 as published (adjusted) and on the same basis as 1981 statistics are now being completed (unadjusted) to permit comparison between 1980 and 1981 data series. Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Adjusted and Unadjusted Refinery Production, and Unadjusted Product Supplied of Distillate and Resi ual Fuel Oils, by Month for 1979 and 1980 (Thousand Barrels Per Day)

1979

Month	Distillate Fuel Oil Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Residual Fuel Oil Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,043	3,108	65	4,646	1,912	1,946	34	3,594
Feb.	2,888	2,945	57	4,869	1,792	1,822	30	3,625
Mar.	3,019	3,026	7	3,671	1,719	1,723	4	3,243
Apr.	2,945	2,978	32	3,048	1,639	1,656	17	2,524
May	3,066	3,093	27	3,025	1,586	1,600	14	2,517
Jun.	3,153	3,187	35	2,743	1,548	1,566	18	2,601
Jul.	3,305	3,344	38	2,601	1,575	1,594	20	2,471
Aug.	3,321	3,359	38	2,799	1,584	1,603	20	2,570
Sep.	3,354	3,306	– 48	2,599	1,627	1,602	– 25	2,584
Oct.	3,251	3,217	– 34	3,085	1,629	1,612	– 17	2,523
Nov.	3,239	3,200	– 39	3,208	1,736	1,716	– 20	2,795
Dec.	3,221	3,238	17	3,725	1,894	1,903	9	3,022
Average	3,152	3,169	16	3,327	1,687	1,695	8	2,834

1980

Month	Distillate Fuel Oil Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Residual Fuel Oil Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Produc Supplie
Jan.	3,013	3,093	80	3,794	1,771	1,812	41	3,108
Feb.	2,766	2,888	122	3,834	1,773	1,836	63	3,168
Mar.	2,557	2,690	133	3,312	1,584	1,652	68	2,726
Apr.	2,460	2,554	94	2,729	1,595	1,643	48	2,492
May	2,474	2,610	136	2,538	1,509	1,579	70	2,305
Jun.	2,646	2,721	75	2,392	1,575	1,613	38	2,359
Jul.	2,689	2,783	94	2,343	1,480	1,528	48	2,339
Aug.	2,461	2,582	121	2,258	1,444	1,506	62	2,348
Sep.	2,686	2,726	40	2,627	1,495	1,516	21	2,380
Oct.	2,589	2,650	61	2,981	1,512	1,543	31	2,258
Nov.	2,703	2,823	120	3,069	1,579	1,641	62	2,513
Dec.	2,891	3,052	161	3,776	1,660	1,743	83	2,762
Average	2,661	2,764	103	2,969	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Si these changes only involve redistribution of the umes of gasoline, distillate and residual fuel oil, ga line blending components, and unfinished oils, total volume of petroleum products supplied rema unaffected by them.

Note 13: NGL Import/Export Algorithms

eginning in January 1984, the Energy Information Adnistration (EIA) implemented changes in the reportg of natural gas liquid (NGL) supply data, moving from nine-product slate to a five-component slate that corsponds to industry record-keeping practices. anges could not be made to the import and export stems. Therefore, in order to allocate imports and exrts of mixed NGL streams to individual component rts, the EIA developed a statistical algorithm.

Imports

The imports algorithm is based on information gathered from the larger importers of NGL, who were asked to provide component analyses of the products they imported during the first six months of 1983. The percentages shown in Exhibit 1 are derived from the weighted averages of the data provided by the importers.

(HIBIT 1. ALGORITHMS FOR ALLOCATING NGL IMPORTS

PRODUCT SLATE	*Ethane*	*Propane*	*Normal butane*	*Isobutane*	*Pentanes Plus*
tural Gasoline & Isopentane (EIA-814)					100%
ant Condensate (EIA-814)					100%
nane (IM-145)	100%				
tane (IM-145)			60%	40%	
tane-Propane Mixtures (IM-145)		40%	35%	20%	5%
nane-Propane Mixtures (IM-145)	80%	20%			

(ports

e export algorithm is based on information gathered m the larger exporters of NGL, who were asked to ovide component analyses of the products they exported during 1983. The percentages shown in Exhibit 2 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by PAD of exportation, due to the wide variation of components in the mixed streams.

(HIBIT 2. ALGORITHMS FOR ALLOCATING NGL EXPORTS

		EIA Component Slate				
RODUCT	*P.A.D.*	*Ethane*	*Propane*	*Normal Butane*	*Isobutane*	*Pentanes Plus*
nane	All	100%				
opane	All		100%			
tane	All			100%		
xed Streams	I, IV, V		40%	60%		
	II	30%	25%	15%	15%	15%
	III		80%	20%		

. GOVERNMENT PRINTING OFFICE: 1984-421-766:110

LIBRARY U. OF I. URBANA-CHAMPAIGN

LIBRARY U. OF I. URBANA-CHAMPAIGN

Energy Information Administration
Forrestal Building
Washington, D.C. 20585

FIRST—CLASS MAIL
POSTAGE & FEES PAID
U.S. DEPT. OF ENERGY
PERMIT NO. G 20

FIRST CLASS MAIL

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

E3,11/5:
84/03

E/EIA-0109 (84/03)

BOOKSTACKS
DOCUMENTS

Petroleum Supply Monthly

March 1984

ublished:
ay 1984

Energy Information Administration
Washington, D.C.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Subscription Information

Subscriptions

This publication is available on an annual subscription basis from the Superintendent of Documents, U.S. Government Printing Office (GPO). Prices and ordering information for this and other Energy Information Administration (EIA) publications may be obtained from the GPO or the EIA's National Energy Information Center. Addresses and telephone numbers appear below. An order form is enclosed for your convenience.

National Energy Information Center, EI-20
Energy Information Administration
Room 1F-048, Forrestal Building
Washington, D.C. 20585
(202) 252-8800

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
(202) 783-3238

Information

Questions on energy statistics may be directed to the National Energy Information Center at the address and phone number shown above.

Released for printing: May 22, 1984

etroleum
upply
onthly

arch 1984

blished:
y 1984

his report was prepared by the
nergy Information Administration,
e independent statistical and
nalytical agency within the De-
artment of Energy. The informa-
on contained herein should not
e construed as advocating or
ecessarily reflecting any policy po-
tion of the Department of Energy
r any other organization.

Energy Information Administration
Washington, D.C. 20585

DOE/EIA-0109 (84/03)
Dist. Category UC-98

DEPOSITORY
JAN 3 1985
UNIVERSITY OF ILLINOIS
AT URBANA CHAMPAIGN

Contents

Page

Petroleum Focus

Petroleum Supply Summary.................. ix

Summary Statistics—through April 1984

Crude Oil and Petroleum Products Overview.. 2
Crude Oil Supply and Disposition........... 6
Crude Oil and Petroleum Products Imports... 8
Finished Motor Gasoline Supply and Disposition................................ 11
Distillate Fuel Oil Supply and Disposition.... 13
Residual Fuel Oil Supply and Disposition 15
Liquefied Petroleum Gases Supply and Disposition................................ 17
Other Petroleum Products Supply and Disposition................................ 18
Sources 19

Detailed Statistics—March 1984

National Statistics

1. U.S. Petroleum Balance................ 23
2. Supply and Disposition of Crude Oil and Petroleum Products.................. 24
3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products....... 25
4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products....... 26
5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products 27

Supply and Disposition of Crude Oil and Petroleum Products by PAD Districts

6. PAD District I......................... 28
7. PAD District II........................ 29
8. PAD District III 30
9. PAD District IV 31
10. PAD District V........................ 32

Production of Crude Oil and Lease Condensate

11. Production by PAD District and State, January 1984 33

Natural Gas Processing

12. Plant Production of Petroleum Products by PAD Districts..................... 34

Refinery Operations by PAD District

13. Refinery Input of Crude Oil and Petroleum Products......................... 35
14. Refinery Production of Petroleum Products 36
15. Percent Refinery Yield of Petroleum Products 37

Contents (Continued)

Page

Imports and Exports of Crude Oil and Petroleum Products

16. Imports by PAD District 38
17. Imports by Source and PAD District 39
18. Exports by PAD District 43
19. Exports by Destination 44

Stocks

20. Stocks of Crude Oil and Petroleum Products by PAD District 46

Transportation of Crude Oil and Petroleum Products Between PAD Districts

21. Movements by Pipeline, Tanker and Barge 51
22. Movements by Pipeline 52
23. Movements by Tanker and Barge 52
24. Net Movements by Pipeline, Tanker, and Barge 53

Heavy Fuel Oils by Sulfur Content

25. Production of Residual Fuel Oil 54
26. Stocks of Residual Fuel Oil 54
27. Movements by Tanker and Barge 54
28. Imports of Residual Fuel Oil by Country of Origin 55
29. Imports of Residual Fuel Oil by State of Entry 56

Glossary

Definitions of Petroleum Products and Other Terms 59
Bureau of Mines Petroleum Refining Districts and PAD Districts 65

Maps

PAD Districts 66
Bureau of Mines Refinery Districts 66
District Map, Oil and Gas Division, Railroad Commission of Texas 67

Explanatory Notes

1. Data Collection Methodology 71
   1.1 Weekly Petroleum Supply Reporting System (WPSRS) 71
   1.2 Monthly Petroleum Supply Reporting System (MPSRS) 72
   1.3 Census Import (IM-145) and Export (EM-522 and EM 594) Data 74
2. Supply 75
3. Domestic Crude Oil Production 75
4. Disposition 76
5. Stocks 76
6. Average Stock Levels 76
7. Movements 77
8. Preliminary Monthly Statistics 77
9. Notes on Tables 77

Page

10. New Stock Basis 79
11. Stocks of Alaskan Crude Oil 80
12. Changes in Petroleum Industry Reporting .. 80
13. NGL Import/Export Algorithms 83

Figures

Petroleum Overview 4
Petroleum Products Supplied 4
Crude Oil Supply and Disposition 5
Crude Oil Ending Stocks 5
Motor Gasoline Supply and Disposition 10
Motor Gasoline Ending Stocks 10
Distillate Fuel Oil Supply and Disposition 12
Distillate Fuel Oil Ending Stocks 12
Residual Fuel Oil Supply and Disposition 14
Residual Fuel Oil Ending Stocks 14
Liquefied Petroleum Gases Supply and Disposition 16
Liquefied Petroleum Gases Ending Stocks 16

Articles

Feature articles on energy-related subjects are frequently included in this publication. The following articles have appeared in previous issues of the *PSM.*

U.S. Petroleum Developments: 1981	Mar 1982
Timeliness and Accuracy of Selected Monthly Petroleum Supply Data	Apr 1982
Focus on Motor Gasoline Statistics	Apr 1982
Focus on Crude Oil Production Data	Apr 1982
Motor Gasoline Outlook: Summer 1982	May 1982
Gasoline Use in the United States	May 1982
The Impact of Changing Vehicle Characteristics and Use on Motor Gasoline Demand	May 1982
1982 EIA Petroleum Refinery Survey Results	Jun 1982
What is a Refinery?	Jun 1982
Mid-year Petroleum Supply Review	Jul 1982
Petroleum Imports and Exports	Aug 1982
Refinery Shutdowns During 1982	Sep 1982
Distillate Fuel Oil Outlook: Winter 1982-83	Sep 1982
Recent Trends in Fuel Oil	Sep 1982
Futures Trading on Heating Oil Markets	Sep 1982
J.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1981 Annual Report	Oct 1982
Trends in Domestic Crude Oil Production and Reserves	Nov 1982
Major Energy Companies' Investment and Resource Development Patterns, 1974-80	Nov 1982
J.S. Petroleum Developments: 1982	Jan 1983
Trends in Petroleum Products Consumption, 1971-1982	Jan 1983
Refinery Shutdowns During 1982	Feb 1983
J.S. Petroleum Imports and Exports	Feb 1983
Petroleum Supply Reporting System Overview	Mar 1983
Summer Gasoline Overview	May 1983
Principal Factors Influencing Motor Gasoline Demand	May 1983
J.S. Petroleum Refinery Trends and Outlook	Jun 1983
Mid-Year Petroleum Review	Jul 1983
Timeliness and Accuracy of Selected Petroleum Supply Data Series	Aug 1983
Distillate Fuel Oil Overview: Winter 1983-84	Sep 1983
Fuel Oil Trends	Sep 1983
J.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves	Sep 1983
.PG Market Trends	Nov 1983
National Petroleum Council Revises Minimum Operating Inventory Estimates	Dec(1) 1983
J.S. Petroleum Developments: 1983	Dec(2) 1983
An Overview of Petroleum Transportation	Dec(3) 1983
EIA Revises Petroleum Supply Reporting System	Jan 1984
Trends in Petroleum Product Consumption	Jan 1984
Petroleum Consumption in the Industrial Sector	Jan 1984
Motor Gasoline Outlook for Summer 1984	Feb 1984
Recent Motor Gasoline Trends	Feb 1984
New Patterns Emerging in U.S. Petroleum Imports and Exports	Feb 1984

Petroleum Focus

LIBRARY U. OF I. URBANA-CHAMPAIGN

Petroleum Supply Summary

Average Volume for Period (Million Barrels Per Day)	April 1984	April 1983	April % Change	Cumulative January Through April 1984	Cumulative January Through April 1983	Cumulative January Through April % Change
Products Supplied						
Motor Gasoline	6.8	6.5	– 3.8	6.4	6.3	1.6
Distillate Fuel Oil	2.9	2.7	7.3	3.1	2.8	11.8
Residual Fuel Oil	1.3	1.4	– 3.9	1.6	1.5	7.8
Other Products	4.2	4.2	– 0.2	4.6	4.3	7.8
Total	15.2	14.8	2.6	15.8	15.0	5.9
Crude Inputs to Refineries	11.9	11.4	4.1	11.9	11.0	7.9
Production						
Crude Oil, Natural Gas Liquids, and Other[1]	10.3	10.2	0.9	10.3	10.3	0.5
Imports						
Crude Oil[2]	3.3	2.9	11.8	3.1	2.4	25.7
SPR	0.1	0.2	– 28.8	0.1	0.2	– 29.1
Products	1.5	1.6	– 4.5	2.1	1.5	42.1
Total	5.0	4.7	4.6	5.3	4.1	28.8
Exports						
Crude Oil	0.2	0.1	168.2	0.2	0.2	28.5
Products	0.6	0.7	– 16.1	0.5	0.7	– 27.8
Total	0.8	0.8	3.8	0.7	0.9	– 17.6
Stock Withdrawal						
Crude Oil[2]	– 0.3	– 0.2	—	(s)	– 0.1	—
Products	– 0.1	0.4	—	0.1	1.1	—
Stocks at End of Period (Million Barrels)						
Crude Oil						
SPR	397	318	24.8			
Other	345	366	– 5.6			
Total	742	684	8.6			
Products						
Motor Gasoline[3]	245	221	11.0			
Distillate Fuel Oil	99	103	– 4.1			
Residual Fuel Oil	44	47	– 6.6			
Other	323	322	0.5			
Total	711	692	2.7			
Total Crude Oil and Products	1,453	1,376	5.6			

---

1 Includes alcohol and other hydrocarbon liquids.
2 Excludes Strategic Petroleum Reserve (SPR).
3 Including blending components.
(s) = Less than 0.05 million barrels per day.

NOTE: Percent changes are based on unrounded values. April 1984 data are estimates based on weekly data, except for exports, NGL production, other hydrocarbons, and alcohol which are March 1984 monthly values. Totals may not be equal to sum of components due to independent rounding.

Source: Energy Information Administration, *Petroleum Supply Monthly*, March 1984.

Summary Statistics

LIBRARY U. OF I. URBANA-CHAMPAIGN

Crude Oil[1] and Petroleum Products Overview

		Field Production			Stock Withdrawal[2]			Ending Stocks[3]
		Total Domestic[4]	Crude Oil	Natural Gas Plant Production	Crude Oil[5]	Petroleum Products	Petroleum Products Supplied	Crude Oil[5] and Petroleum Products
		Thousand Barrels per Day						Million Barrels
1973	**AVERAGE**	**10,975**	**9,208**	**1,738**	**11**	**-146**	**17,308**	**1,008**
1974	**AVERAGE**	**10,498**	**8,774**	**1,688**	**-62**	**-117**	**16,653**	[8] **1,074**
1975	**AVERAGE**	**10,045**	**8,375**	**1,633**	[8] **-17**	[8] **-145**	**16,322**	**1,133**
1976	**AVERAGE**	**9,774**	**8,132**	**1,603**	**-39**	**96**	**17,461**	**1,112**
1977	**AVERAGE**	**9,913**	**8,245**	**1,618**	**-170**	**-378**	**18,431**	**1,312**
1978	**AVERAGE**	**10,328**	**8,707**	**1,567**	**-78**	**172**	**18,847**	**1,278**
1979	**AVERAGE**	**10,179**	**8,552**	**1,584**	**-148**	**-25**	**18,513**	**1,341**
1980	**AVERAGE**	**10,214**	**8,597**	**1,573**	**-98**	**-42**	**17,056**	[8] **1,392**
1981	**AVERAGE**	**10,230**	**8,572**	**1,609**	[8] **-290**	[8] **130**	**16,058**	**1,484**
1982	January	10,128	8,509	1,578	-401	1,298	16,124	1,456
	February	10,312	8,702	1,563	-242	1,230	16,001	1,428
	March	10,284	8,667	1,572	121	1,047	15,560	1,392
	April	10,188	8,591	1,542	-37	1,583	16,046	1,346
	May	10,244	8,683	1,518	29	-66	14,847	1,347
	June	10,212	8,646	1,511	40	-489	14,998	1,360
	July	10,229	8,658	1,513	-147	-926	14,821	1,393
	August	10,215	8,634	1,524	-440	-44	14,839	1,408
	September	10,279	8,701	1,518	263	-447	15,022	1,414
	October	10,299	8,701	1,530	-548	-47	14,859	1,432
	November	10,359	8,697	1,609	-398	-361	15,009	1,455
	December	10,276	8,598	1,628	128	688	15,487	[8] 1,430
	AVERAGE	**10,252**	**8,649**	**1,550**	**-136**	**283**	**15,296**	
1983	January	10,356	8,634	1,668	-567	[8] 865	14,765	1,453
	February	10,298	8,660	1,585	-382	1,128	14,772	1,432
	March	10,259	8,677	1,544	56	1,765	15,484	1,375
	April	10,229	8,686	1,502	-438	431	14,779	1,376
	May	10,231	8,682	1,483	68	-759	14,250	1,397
	June	10,262	8,676	1,514	-163	-242	15,281	1,409
	July	10,237	8,647	1,536	118	-922	14,913	1,434
	August	10,257	8,653	1,561	-781	-289	15,366	1,467
	September	10,323	8,666	1,598	-191	-634	15,396	1,492
	October	10,317	8,654	1,604	-180	-456	14,947	1,512
	November	10,310	8,624	1,636	182	-128	15,533	1,510
	December	10,188	8,612	1,533	-306	2,150	16,691	1,453
	AVERAGE	**10,272**	**8,656**	**1,564**	**-215**	**239**	**15,184**	
1984	January	10,282	8,659	1,585	-342	1,085	16,726	1,430
	February	10,410	8,726	1,629	186	-1,353	15,389	1,464
	March*	10,354	8,718	1,588	R -2	R 643	R 16,017	R 1,444
	April**	NA	8,688	NA	*-485*	*-141*	*15,164*	*1,453*
	AVERAGE	**NA**	**8,697**	**NA**	**-164**	**83**	**15,837**	

---

[1] Includes lease condensate.
[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[3] Stocks are totals as of end of period.
[4] Includes crude oil, natural gas plant production, other hydrocarbons, and alcohol.
[5] Includes stocks located in the Strategic Petroleum Reserve.
[6] Includes crude oil for storage in the Strategic Petroleum Reserve.
[7] Net Imports equal Imports minus Exports.
[8] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

Footnotes continued on following page.

Crude Oil[1] and Petroleum Products Overview (continued)

	Imports			Exports			
	Total	Crude Oil[6]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net[7] Imports
	Thousand Barrels per Day						
1973 AVERAGE	**6,256**	**3,244**	**3,012**	**231**	**2**	**229**	**6,025**
1974 AVERAGE	**6,112**	**3,477**	**2,635**	**221**	**3**	**218**	**5,892**
1975 AVERAGE	**6,056**	**4,105**	**1,951**	**209**	**6**	**204**	**5,846**
1976 AVERAGE	**7,313**	**5,287**	**2,026**	**223**	**8**	**215**	**7,090**
1977 AVERAGE	**8,807**	**6,615**	**2,193**	**243**	**50**	**193**	**8,565**
1978 AVERAGE	**8,363**	**6,356**	**2,008**	**362**	**158**	**204**	**8,002**
1979 AVERAGE	**8,456**	**6,519**	**1,937**	**472**	**235**	**237**	**7,984**
1980 AVERAGE	**6,909**	**5,263**	**1,646**	**544**	**287**	**258**	**6,365**
1981 AVERAGE	**5,996**	**4,396**	**1,599**	**595**	**228**	**367**	**5,401**
1982 January	5,332	3,693	1,639	829	238	591	4,503
February	4,807	2,990	1,817	804	304	499	4,003
March	4,484	2,874	1,610	882	321	561	3,602
April	4,378	2,849	1,529	786	174	611	3,593
May	4,811	3,309	1,503	803	262	542	4,008
June	5,327	3,836	1,491	703	94	609	4,624
July	5,890	4,248	1,642	741	229	512	5,149
August	5,244	3,851	1,392	858	304	554	4,386
September	5,414	3,636	1,778	791	184	606	4,624
October	5,306	3,670	1,636	932	270	662	4,374
November	5,744	3,862	1,882	786	262	524	4,958
December	4,606	3,000	1,605	860	193	667	3,746
AVERAGE	**5,113**	**3,488**	**1,625**	**815**	**236**	**579**	**4,298**
1983 January	4,372	2,938	1,434	973	117	856	3,399
February	3,691	2,268	1,423	865	262	603	2,825
March	3,629	2,232	1,398	801	174	627	2,829
April	4,744	3,154	1,590	809	88	721	3,935
May	4,898	3,234	1,664	848	280	568	4,049
June	5,218	3,502	1,716	774	144	630	4,443
July	5,690	3,868	1,822	571	145	426	5,119
August	6,036	4,174	1,863	663	172	491	5,373
September	6,088	4,221	1,867	684	177	507	5,403
October	5,256	3,446	1,810	576	140	436	4,680
November	5,168	3,312	1,856	679	186	494	4,489
December	4,986	3,214	1,772	639	95	544	4,348
AVERAGE	**4,988**	**3,303**	**1,686**	**739**	**164**	**575**	**4,249**
1984 January	5,347	3,029	2,318	575	153	422	4,772
February	5,643	2,952	2,691	582	185	397	5,061
March*	R 5,253	R 3,455	R 1,798	840	236	605	4,413
April**	*4,961*	*3,443*	*1,518*	NA	NA	NA	NA
AVERAGE	**5,298**	**3,222**	**2,076**	**NA**	**NA**	**NA**	**NA**

Footnotes continued.

* See Explanatory Note 9.1.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available.

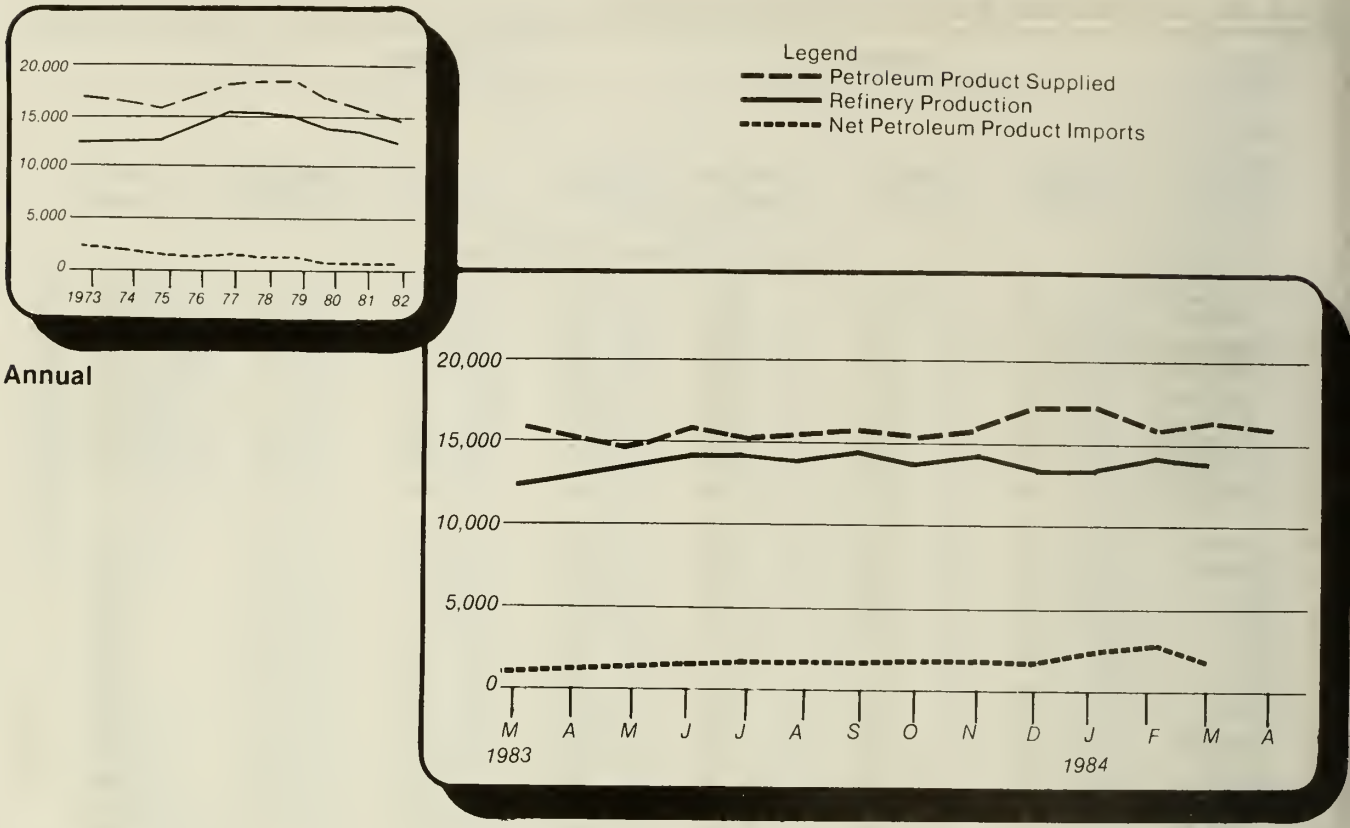
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Petroleum Overview

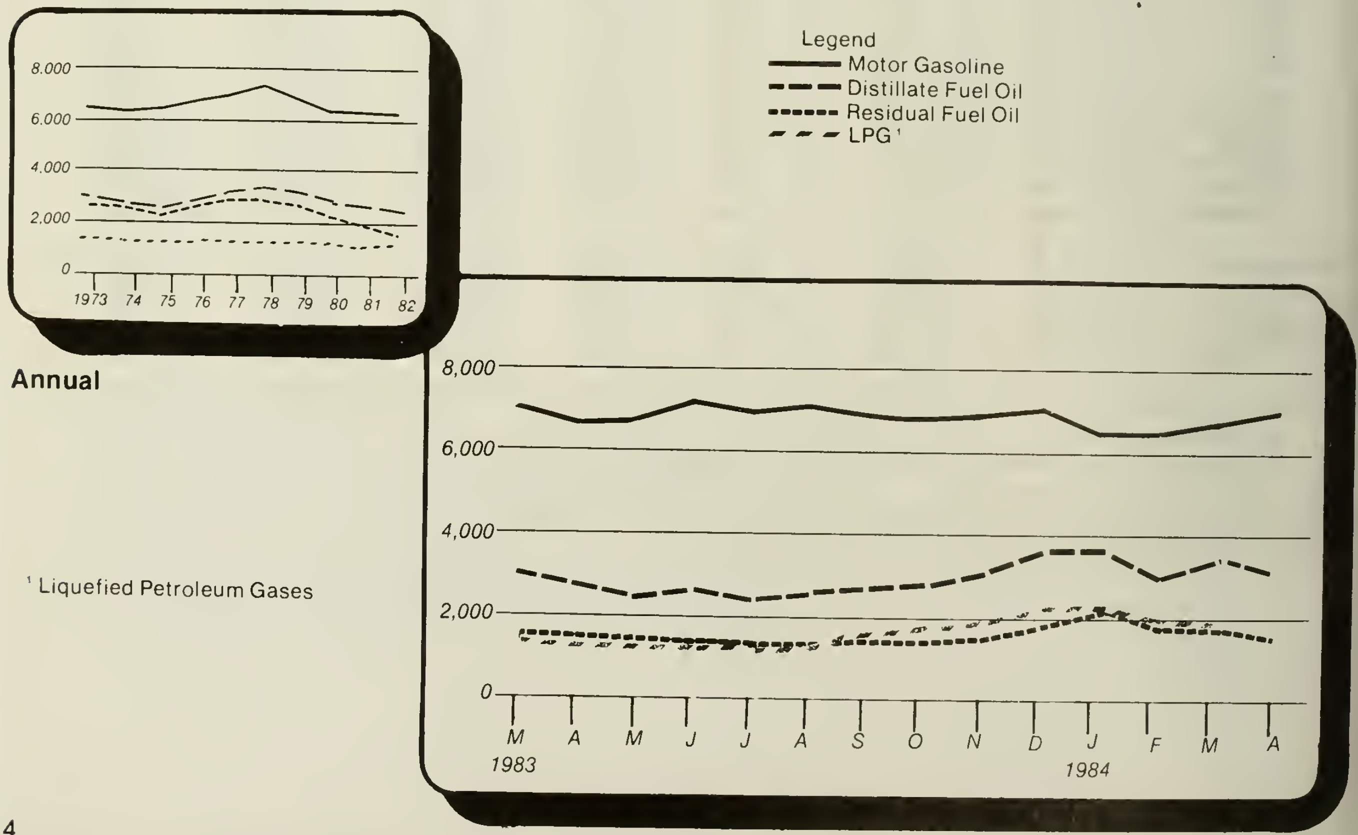
(Thousand Barrels Per Day)



Monthly

Petroleum Products Supplied

(Thousand Barrels Per Day)

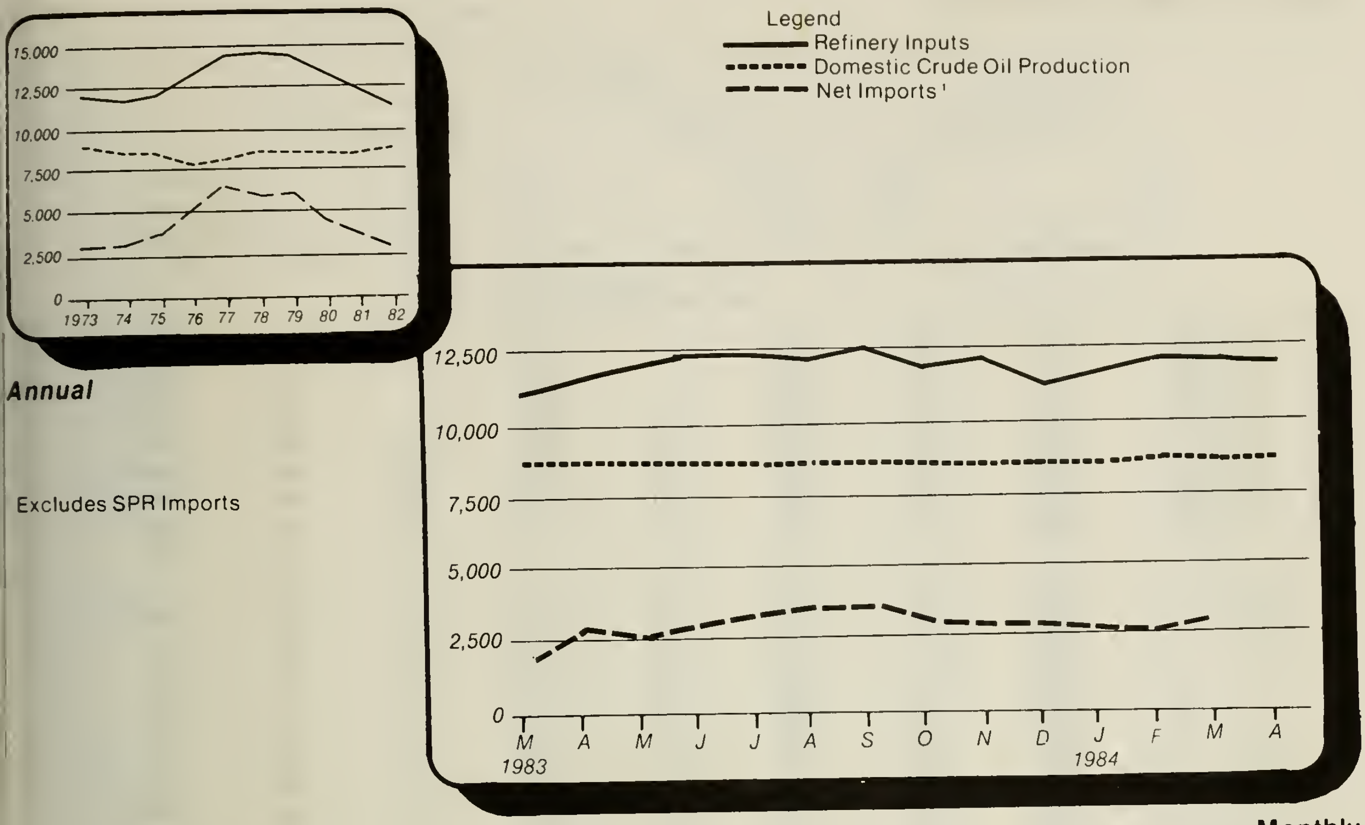


Monthly

[1] Liquefied Petroleum Gases

Crude Oil Supply and Disposition

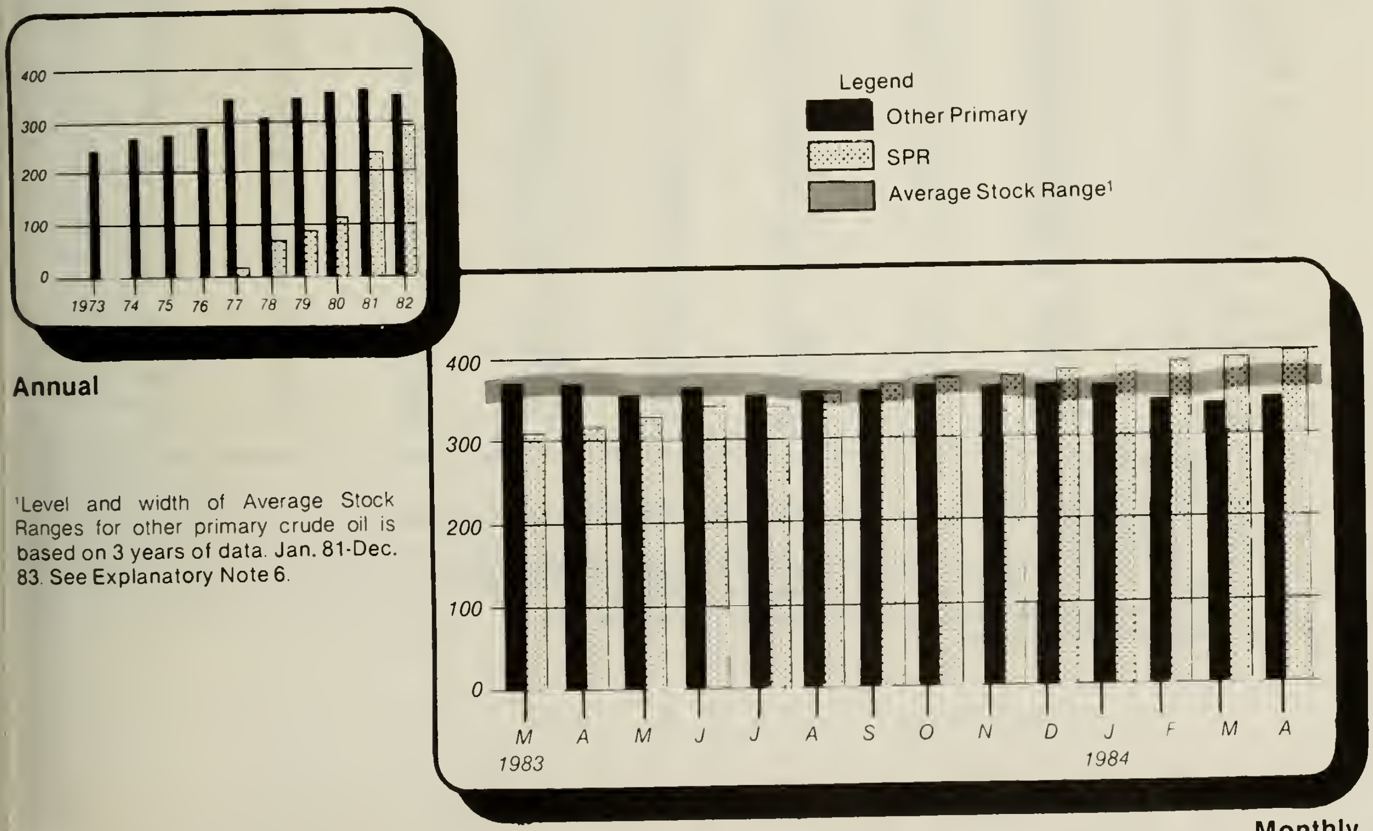
(Thousand Barrels Per Day)



[1] Excludes SPR Imports

Crude Oil Ending Stocks

(Million Barrels)



[1] Level and width of Average Stock Ranges for other primary crude oil is based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

Crude Oil[1] Supply and Disposition

	Supply							
	Field Production		Imports			Stock Withdrawal[3]		
	Total Domestic	Alaskan	Total	SPR[4]	Other	SPR[4]	Other	Unaccounted for Crude Oil
	Thousand Barrels per Day							
1973 AVERAGE	**9,208**	**198**	**3,244**		**3,244**		**11**	**3**
1974 AVERAGE	**8,774**	**193**	**3,477**		**3,477**		**-62**	**-25**
1975 AVERAGE	**8,375**	**191**	**4,105**		**4,105**		**-17**	**17**
1976 AVERAGE	**8,132**	**173**	**5,287**		**5,287**		**-39**	**77**
1977 AVERAGE	**8,245**	**464**	**6,615**	**21**	**6,594**	**-20**	**-150**	**-6**
1978 AVERAGE	**8,707**	**1,229**	**6,356**	**162**	**6,195**	**-163**	**84**	**-57**
1979 AVERAGE	**8,552**	**1,401**	**6,519**	**67**	**6,452**	**-67**	**-81**	**-11**
1980 AVERAGE	**8,597**	**1,617**	**5,263**	**44**	**5,219**	**-45**	**-52**	**34**
1981 AVERAGE	**8,572**	**1,609**	**4,396**	**256**	**4,141**	**-336**	[6] **46**	**83**
1982 January	8,509	1,705	3,693	170	3,523	-159	-242	101
February	8,702	1,707	2,990	159	2,830	-213	-29	156
March	8,667	1,696	2,874	185	2,689	-235	357	2
April	8,591	1,691	2,849	190	2,659	-233	196	231
May	8,683	1,707	3,309	204	3,105	-176	205	111
June	8,646	1,665	3,836	105	3,732	-105	144	133
July	8,658	1,710	4,248	97	4,150	-97	-50	-20
August	8,634	1,697	3,851	208	3,643	-208	-232	189
September	8,701	1,705	3,636	139	3,497	-143	406	-210
October	8,701	1,706	3,670	216	3,454	-216	-332	249
November	8,697	1,676	3,862	180	3,683	-179	-219	-124
December	8,598	1,682	3,000	124	2,877	-125	252	35
AVERAGE	**8,649**	**1,696**	**3,488**	**165**	**3,323**	**-174**	**38**	**71**
1983 January	8,634	1,698	2,938	219	2,720	-219	-348	238
February	8,660	1,725	2,268	197	2,071	-197	-185	423
March	8,677	1,726	2,232	201	2,031	-184	240	134
April	8,686	1,710	3,154	205	2,949	-197	-241	191
May	8,682	1,710	3,234	289	2,945	-293	362	148
June	8,676	1,710	3,502	190	3,312	-188	25	480
July	8,647	1,705	3,868	274	3,594	-264	382	-74
August	8,653	1,712	4,174	350	3,823	-358	-423	333
September	8,666	1,722	4,221	309	3,912	-307	116	-6
October	8,654	1,731	3,446	202	3,244	-201	21	69
November	8,624	1,713	3,312	171	3,141	-135	317	137
December	8,612	1,713	3,214	193	3,021	-252	-55	-141
AVERAGE	**8,656**	**1,715**	**3,303**	**234**	**3,069**	**-234**	**19**	**159**
1984 January	8,659	1,741	3,029	200	2,829	-173	-169	451
February	8,726	1,740	2,952	85	2,868	-96	282	487
March*	8,718	1,740	R 3,455	R 148	R 3,307	R -147	R 145	66
April**	8,688	1,725	*3,443*	*146*	*3,297*	*-146*	*-339*	NA
AVERAGE	**8,697**	**1,736**	**3,222**	**146**	**3,077**	**-141**	**-23**	**NA**

---

[1] Includes lease condensate.

[2] Stocks are totals as of end of period.

[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[4] Strategic Petroleum Reserve.

[5] Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.

[6] Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels. See Explanatory Note 11.

Footnotes continued on following page.

rude Oil[1] Supply and Disposition (continued)

	Supply	Disposition				Ending Stocks[2]		
	Crude Used Directly[5]	Crude Losses	Refinery Inputs	Exports	Products Supplied[5]	Total Crude Oil	SPR[4]	Other Primary
	Thousand Barrels per Day					Million Barrels		
973 AVERAGE	**-19**	**13**	**12,431**	**2**	**NA**	**242**		**242**
974 AVERAGE	**-15**	**13**	**12,133**	**3**	**NA**	**265**		**265**
975 AVERAGE	**-17**	**13**	**12,442**	**6**	**NA**	**271**		**271**
976 AVERAGE	**-18**	**15**	**13,416**	**8**	**NA**	**285**		**285**
977 AVERAGE	**-14**	**16**	**14,602**	**50**	**NA**	**348**	**7**	**340**
978 AVERAGE	**-14**	**16**	**14,739**	**158**	**NA**	**376**	**67**	**309**
979 AVERAGE	**-13**	**16**	**14,648**	**235**	**NA**	**430**	**91**	**339**
980 AVERAGE	**-13**	**15**	**13,481**	**287**	**NA**	[6] **466**	**108**	[6] **358**
981 AVERAGE	**-58**	**5**	**12,470**	**228**	**NA**	**594**	**230**	**363**
982 January	-63	3	11,599	238	NA	606	235	371
February	-64	2	11,236	304	NA	613	241	372
March	-63	5	11,276	321	NA	609	249	361
April	-65	3	11,392	174	NA	610	256	355
May	-62	3	11,806	262	NA	609	261	348
June	-60	7	12,494	94	NA	608	264	344
July	-60	3	12,446	229	NA	613	267	346
August	-57	2	11,871	304	NA	626	274	353
September	-56	4	12,146	184	NA	619	278	341
October	-51	2	11,749	270	NA	636	285	351
November	-51	1	11,724	262	NA	648	290	358
December	-53	1	11,514	193	NA	644	294	350
AVERAGE	**-59**	**3**	**11,774**	**236**	**NA**			
983 January	NA	2	11,070	117	54	661	301	361
February	NA	3	10,635	262	69	672	306	366
March	NA	2	10,854	174	70	670	312	359
April	NA	2	11,436	88	68	684	318	366
May	NA	1	11,789	280	63	681	327	355
June	NA	1	12,287	144	64	686	332	354
July	NA	2	12,347	145	65	683	341	342
August	NA	1	12,141	172	64	707	352	355
September	NA	1	12,445	177	66	713	361	352
October	NA	1	11,784	140	63	718	367	351
November	NA	2	12,003	186	64	713	371	341
December	NA	1	11,217	95	67	722	379	343
AVERAGE	**NA**	**1**	**11,672**	**164**	**65**			
984 January	NA	1	11,579	153	64	733	384	348
February	NA	1	12,100	185	65	727	387	340
March*	NA	2	R11,936	236	62	R 728	392	R 336
April**	NA	NA	*11,905*	NA	NA	*742*	*397*	*345*
AVERAGE	**NA**	**NA**	**11,876**	**NA**	**NA**			

Footnotes continued.

* See Explanatory Note 9.2.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available.

Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources[1]										
		Algeria	**Libya**	**Saudi Arabia**	**United Arab Emirates**	**Indo-nesia**	**Iran**	**Nigeria**	**Vene-zuela**	**Other OPEC[2]**	**Total OPEC**	**Total Arab OPEC[3]**
		Thousand Barrels per Day										
1973	**AVERAGE**	**136**	**164**	**486**	**71**	**213**	**223**	**459**	**1,135**	**106**	**2,993**	**915**
1974	**AVERAGE**	**190**	**4**	**461**	**74**	**300**	**469**	**713**	**979**	**88**	**3,280**	**752**
1975	**AVERAGE**	**282**	**232**	**715**	**117**	**390**	**280**	**762**	**702**	**122**	**3,601**	**1,383**
1976	**AVERAGE**	**432**	**453**	**1,230**	**254**	**539**	**298**	**1,025**	**700**	**134**	**5,066**	**2,424**
1977	**AVERAGE**	**559**	**723**	**1,380**	**335**	**541**	**535**	**1,143**	**690**	**287**	**6,193**	**3,185**
1978	**AVERAGE**	**649**	**654**	**1,144**	**385**	**573**	**555**	**919**	**645**	**226**	**5,751**	**2,963**
1979	**AVERAGE**	**636**	**658**	**1,356**	**281**	**420**	**304**	**1,080**	**690**	**212**	**5,637**	**3,056**
1980	**AVERAGE**	**488**	**554**	**1,261**	**172**	**348**	**9**	**857**	**481**	**130**	**4,300**	**2,551**
1981	**AVERAGE**	**311**	**319**	**1,129**	**81**	**366**	**0**	**620**	**406**	**90**	**3,323**	**1,848**
1982	January	254	161	877	111	289	0	663	376	128	2,859	1,403
	February	139	92	693	89	244	0	584	355	102	2,297	1,054
	March	91	37	555	155	200	0	522	399	91	2,051	860
	April	85	0	511	122	215	0	427	426	85	1,871	740
	May	179	0	601	116	236	0	222	422	54	1,830	897
	June	115	0	593	94	215	72	537	361	110	2,096	820
	July	159	0	660	108	327	69	910	356	95	2,685	965
	August	181	0	489	133	271	27	574	299	133	2,107	818
	September	179	0	432	57	191	21	477	518	69	1,943	677
	October	249	7	494	61	242	108	313	504	106	2,084	810
	November	247	14	489	47	283	34	479	528	115	2,235	797
	December	155	0	237	12	265	88	462	399	73	1,690	421
	AVERAGE	**170**	**26**	**552**	**92**	**248**	**35**	**514**	**412**	**97**	**2,146**	**854**
1983	January	204	0	282	47	255	43	186	324	43	1,384	533
	February	104	0	214	9	217	0	92	371	28	1,035	326
	March	63	0	103	0	138	0	121	425	173	1,023	183
	April	228	0	180	(s)	210	0	186	508	125	1,438	409
	May	284	0	122	12	324	37	352	444	69	1,645	419
	June	300	0	175	40	502	38	402	335	146	1,938	515
	July	282	0	182	58	464	112	525	431	187	2,240	599
	August	370	0	426	45	416	213	464	477	230	2,641	866
	September	413	0	587	21	516	86	324	472	208	2,627	1,074
	October	261	0	638	16	368	12	307	337	169	2,108	938
	November	165	0	545	56	318	21	214	435	135	1,891	789
	December	141	0	569	45	291	9	329	408	163	1,957	823
	AVERAGE	**235**	**0**	**336**	**29**	**335**	**48**	**294**	**414**	**140**	**1,832**	**625**
1984	January	242	0	463	114	278	0	243	547	51	1,939	828
	February	348	0	324	33	267	0	244	481	174	1,871	723
	March	283	0	307	112	284	67	260	354	127	1,792	717
	AVERAGE	**290**	**0**	**366**	**88**	**276**	**23**	**249**	**460**	**116**	**1,867**	**757**

---

[1] Excludes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

[2] Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

[3] Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

Footnotes continued on following page.

Crude Oil and Petroleum Product Imports (continued)

	Imports from Non-OPEC Sources [4]										
	Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non OPEC	Total Non OPEC	Total Imports
	Thousand Barrels per Day										
973 AVERAGE	**174**	**1,325**	**16**	**585**	**255**	**15**	**99**	**329**	**465**	**3,263**	**6,256**
974 AVERAGE	**164**	**1,070**	**8**	**511**	**251**	**8**	**90**	**391**	**340**	**2,832**	**6,112**
975 AVERAGE	**152**	**846**	**71**	**332**	**242**	**14**	**90**	**406**	**300**	**2,454**	**6,056**
976 AVERAGE	**118**	**599**	**87**	**275**	**274**	**31**	**88**	**422**	**353**	**2,247**	**7,313**
977 AVERAGE	**171**	**517**	**179**	**211**	**289**	**126**	**105**	**466**	**550**	**2,614**	**8,807**
978 AVERAGE	**160**	**467**	**318**	**229**	**253**	**180**	**94**	**429**	**484**	**2,613**	**8,363**
979 AVERAGE	**147**	**538**	**439**	**231**	**190**	**202**	**92**	**431**	**548**	**2,819**	**8,456**
980 AVERAGE	**78**	**455**	**533**	**225**	**176**	**176**	**88**	**388**	**491**	**2,609**	**6,909**
981 AVERAGE	**74**	**447**	**522**	**197**	**133**	**375**	**62**	**327**	**534**	**2,672**	**5,996**
982 January	58	513	425	179	106	346	62	334	452	2,474	5,332
February	67	537	476	221	120	181	38	362	508	2,510	4,807
March	43	437	503	189	118	294	62	307	480	2,433	4,484
April	82	360	476	184	166	247	36	266	690	2,507	4,378
May	77	419	766	152	95	516	47	302	607	2,981	4,811
June	32	481	797	148	129	557	58	322	708	3,231	5,327
July	64	536	783	158	118	433	38	376	698	3,204	5,890
August	80	443	853	145	106	520	24	317	650	3,137	5,244
September	92	493	897	195	89	631	51	278	746	3,472	5,414
October	45	459	682	148	109	666	52	262	801	3,222	5,306
November	51	553	860	212	90	623	81	334	706	3,508	5,744
December	88	561	689	174	102	438	48	336	480	2,916	4,606
AVERAGE	**65**	**482**	**685**	**175**	**112**	**456**	**50**	**316**	**627**	**2,968**	**5,113**
983 January	68	536	849	218	73	315	40	299	588	2,988	4,372
February	92	592	722	179	81	193	50	192	554	2,655	3,691
March	86	488	760	187	78	240	43	162	563	2,606	3,629
April	167	452	981	216	85	421	20	183	781	3,306	4,744
May	135	501	944	153	108	483	42	235	651	3,252	4,898
June	137	576	831	181	120	424	48	252	712	3,281	5,218
July	69	633	849	191	103	369	37	364	836	3,450	5,690
August	142	540	891	194	90	461	40	313	725	3,395	6,036
September	137	523	832	251	82	472	33	308	822	3,461	6,088
October	164	539	771	172	106	414	48	370	565	3,149	5,256
November	143	542	717	144	110	334	55	440	793	3,278	5,168
December	119	592	718	153	113	429	22	271	613	3,030	4,986
AVERAGE	**122**	**542**	**822**	**187**	**96**	**381**	**40**	**283**	**684**	3,156	**4,988**
984 January	152	624	705	277	54	382	53	390	772	3,408	5,347
February	142	620	747	288	77	338	58	418	1,083	3,772	5,643
March	88	726	707	169	93	400	34	247	996	3,460	5,253
AVERAGE	**127**	**658**	**719**	**244**	**75**	**374**	**48**	350	**947**	3,542	5,409

Footnotes continued.

[4] Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

(s) = Less than 500 barrels per day.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Total may not equal sum of components due to independent rounding.

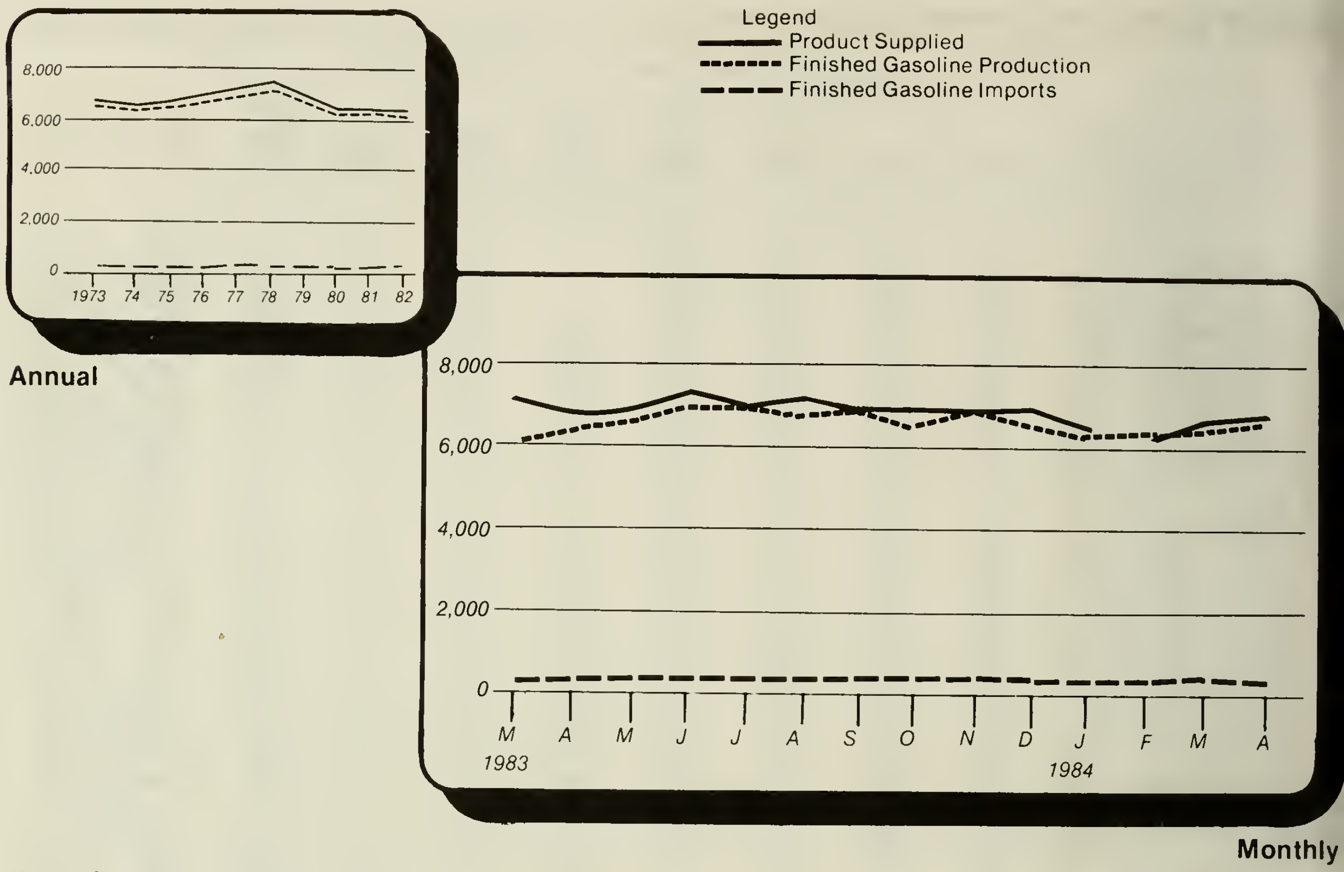
Geographic coverage: The 50 United States and the District of Columbia.

Source: See the last page of this section.

LIBRARY U. OF I. URBANA-CHAMPAIGN

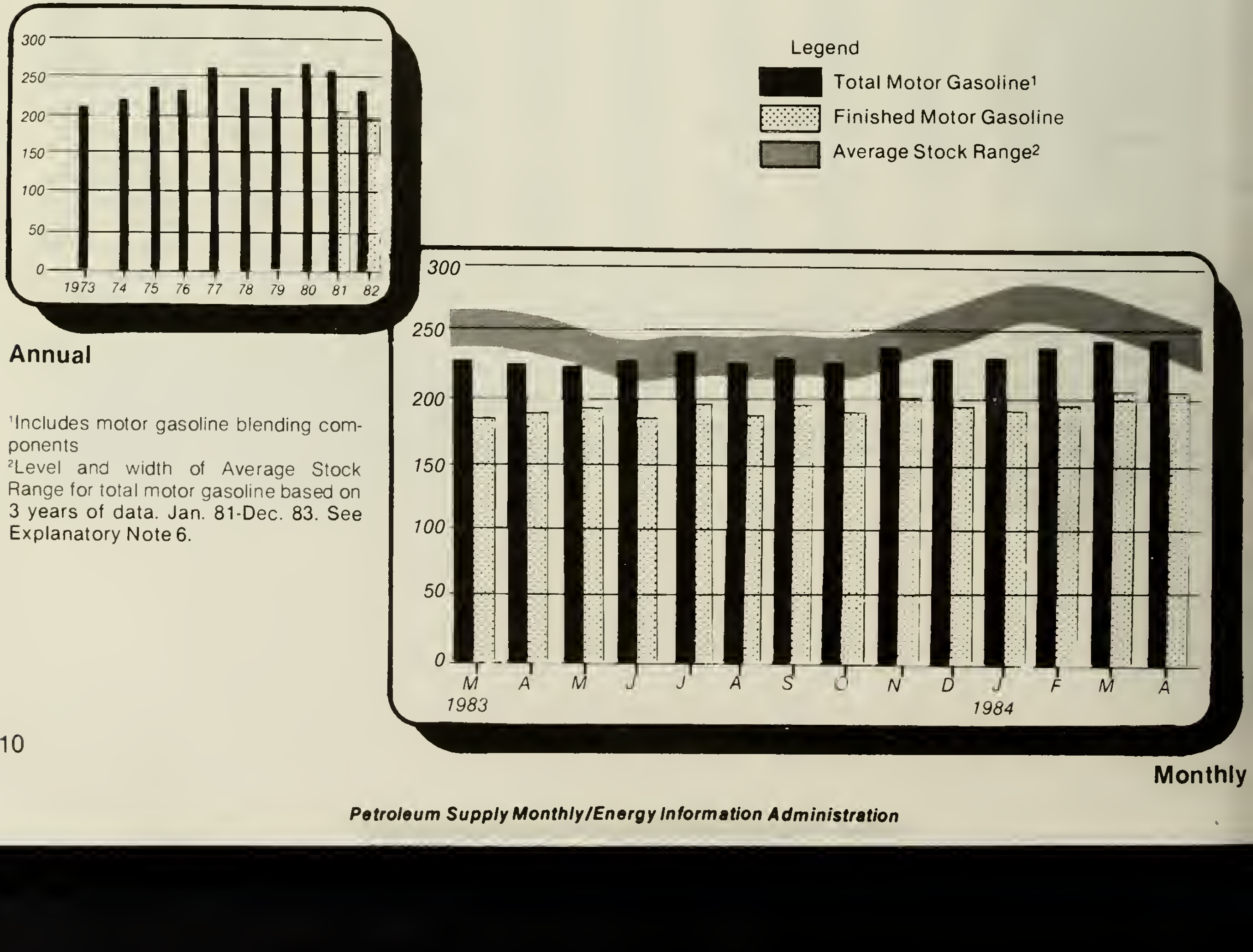
Motor Gasoline Supply and Disposition

(Thousand Barrels Per Day)



Motor Gasoline Ending Stocks

(Million Barrels)



[1] Includes motor gasoline blending components

[2] Level and width of Average Stock Range for total motor gasoline based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

ished Motor Gasoline Supply and Disposition

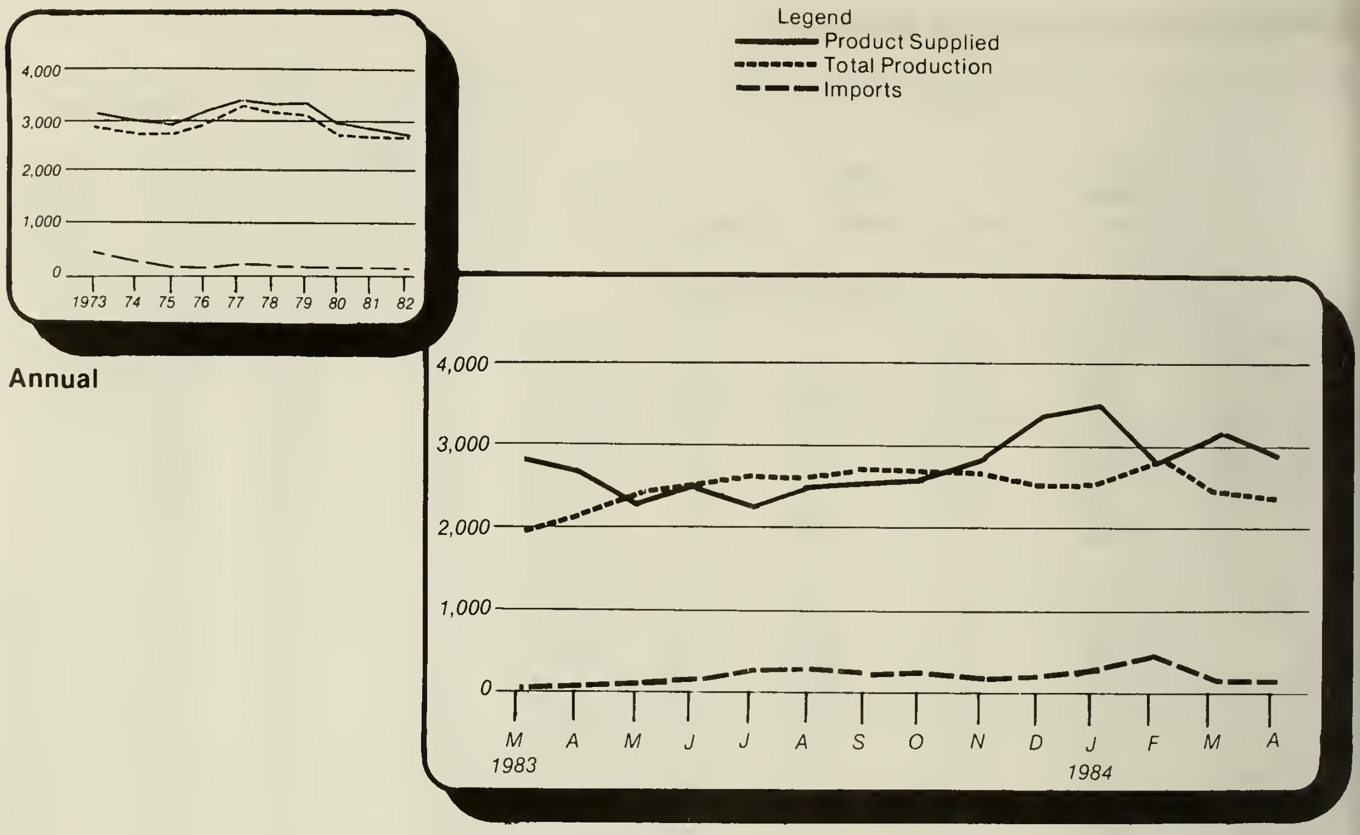
	Supply			Disposition				Ending Stocks[1]	
	Total Production	Imports[2]	Stock Withdrawal[2] [3]	Exports	Products Supplied			Total Motor Gasoline[5]	Finished Motor Gasoline
					Total	Unleaded[4]	Unleaded		
	Thousand Barrels per Day						Percent of Total	Million Barrels	
73 **AVERAGE**	**6,535**	**134**	**9**	**4**	**6,674**	**NA**	**NA**	**209**	
74 **AVERAGE**	**6,360**	**204**	**-24**	**2**	**6,537**	**NA**	**NA**	[6] **218**	
75 **AVERAGE**	**6,520**	**184**	[6] **-28**	**2**	**6,675**	**NA**	**NA**	**235**	
76 **AVERAGE**	**6,841**	**131**	**10**	**3**	**6,978**	**NA**	**NA**	**231**	
77 **AVERAGE**	**7,033**	**217**	**-72**	**2**	**7,177**	**1,976**	**27.5**	**258**	
78 **AVERAGE**	**7,169**	**190**	**54**	**1**	**7,412**	**2,521**	**34.0**	**238**	
79 **AVERAGE**	**6,852**	**181**	**2**	(s)	**7,034**	**2,798**	**39.8**	**237**	
80 **AVERAGE**	**6,506**	**140**	**-66**	**1**	**6,579**	**3,067**	**46.6**	[6] **261**	
81 **AVERAGE**[7]	**6,405**	**157**	[6] **28**	**2**	**6,588**	**3,264**	**49.5**	**253**	
82 January	6,167	128	-316	18	5,961	3,067	51.5	261	213
February	5,899	133	172	8	6,196	3,210	51.8	257	208
March	5,994	183	334	44	6,466	3,358	51.9	247	198
April	6,095	185	650	33	6,897	3,495	50.7	221	179
May	6,319	182	177	23	6,655	3,415	51.3	214	173
June	6,754	230	-134	14	6,835	3,565	52.2	219	177
July	6,768	225	-178	24	6,790	3,577	52.7	226	183
August	6,419	291	-81	16	6,614	3,526	53.3	227	185
September	6,527	223	-198	22	6,531	3,404	52.1	234	191
October	6,262	185	-42	15	6,391	3,351	52.4	234	192
November	6,273	211	101	11	6,574	3,451	52.5	230	189
December	6,542	178	-165	7	6,549	3,485	53.2	[6] 235	[6] 194
AVERAGE	**6,338**	**197**	**25**	**20**	**6,539**	**3,409**	**52.1**		
983 January	6,020	148	[6] -186	(s)	5,981	3,352	56.0	251	208
February	5,848	142	32	(s)	6,022	3,257	54.1	251	207
March	5,897	205	765	23	6,843	3,620	52.9	224	184
April	6,202	273	27	1	6,501	3,505	53.9	221	183
May	6,386	284	-128	1	6,540	3,547	54.2	225	187
June	6,646	265	118	22	7,008	3,796	54.2	223	183
July	6,704	297	-210	18	6,773	3,752	55.4	231	190
August	6,539	260	159	13	6,946	3,836	55.2	226	185
September	6,582	285	-160	14	6,693	3,671	54.8	230	190
October	6,188	335	60	2	6,581	3,698	56.2	228	188
November	6,636	269	-274	2	6,629	3,714	56.0	236	196
December	6,314	217	340	25	6,846	3,967	57.9	222	185
AVERAGE	**6,332**	**249**	**47**	**10**	**6,617**	**3,646**	**55.1**		
1984 January	6,037	233	-1	1	6,268	3,606	57.5	225	186
February	6,320	303	-384	2	6,237	3,585	57.5	237	197
March*	R 6,375	R 343	R -197	9	R 6,512	3,747	57.5	R 243	R 203
April**	*6,615*	*266*	*-129*	NA	*6,750*	NA	NA	*245*	*205*
AVERAGE	**6,335**	**286**	**-175**	**NA**	**6,442**	**NA**	**NA**		

---

[1] Stocks are totals as of end of period.
[2] Beginning in 1981, excludes blending components.
[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[4] Includes gasohol.
[5] Includes motor gasoline blending components.
[6] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.
[7] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.
* See Explanatory Note 9.3.
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.
R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.
Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.
Source: See the last page of this section.

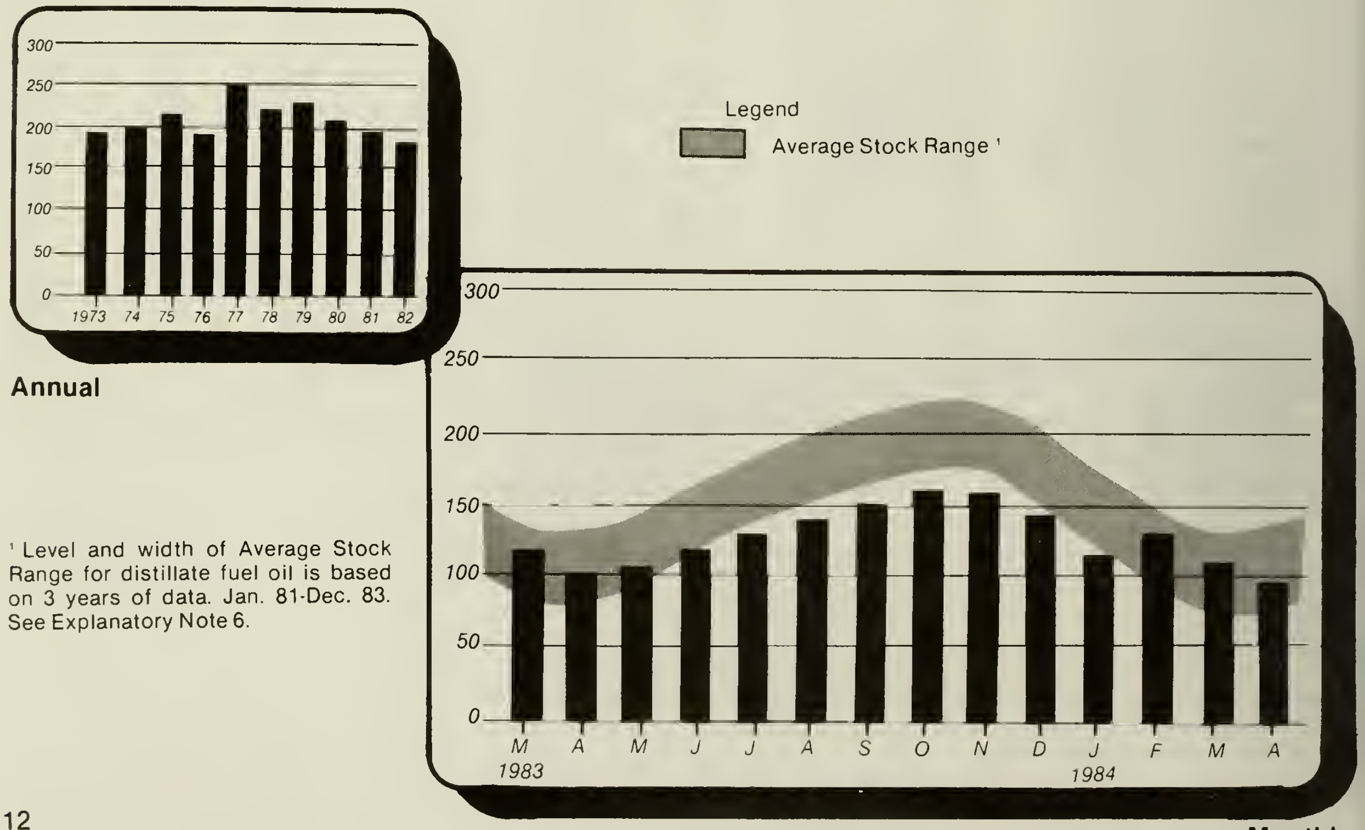
Distillate Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



Distillate Fuel Oil Ending Stocks

(Million Barrels)



[1] Level and width of Average Stock Range for distillate fuel oil is based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

Distillate Fuel Oil Supply and Disposition

	Supply				Disposition		Ending Stocks[1]
	Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Products Supplied[3]	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**2,822**	**392**	**-115**	**2**	**9**	**3,092**	**196**
1974 AVERAGE	**2,669**	**289**	**-9**	**2**	**2**	**2,948**	**[4] 200**
1975 AVERAGE	**2,654**	**155**	**[4] 40**	**2**	**1**	**2,851**	**209**
1976 AVERAGE	**2,924**	**146**	**62**	**1**	**1**	**3,133**	**186**
1977 AVERAGE	**3,278**	**250**	**-176**	**1**	**1**	**3,352**	**250**
1978 AVERAGE	**3,167**	**173**	**93**	**1**	**3**	**3,432**	**216**
1979 AVERAGE	**3,153**	**193**	**-34**	**1**	**3**	**3,311**	**229**
1980 AVERAGE	**2,662**	**142**	**64**	**1**	**3**	**2,866**	**[4] 205**
1981 AVERAGE[5]	**2,613**	**173**	**[4] 38**	**10**	**5**	**2,829**	**192**
1982 January	2,591	97	876	10	90	3,484	164
February	2,427	132	605	11	90	3,085	147
March	2,288	48	682	10	84	2,945	126
April	2,358	59	612	13	64	2,978	108
May	2,618	74	-183	10	75	2,444	114
June	2,729	102	-335	10	55	2,452	124
July	2,734	125	-789	11	24	2,058	148
August	2,507	80	-339	10	40	2,218	159
September	2,657	61	-85	12	139	2,507	161
October	2,838	91	-289	8	66	2,581	170
November	2,860	145	-514	8	24	2,475	186
December	2,655	109	225	10	143	2,855	**[4] 179**
AVERAGE	**2,606**	**93**	**35**	**10**	**74**	**2,671**	
1983 January	2,314	58	**[4] 561**	NA	173	2,760	168
February	2,136	58	742	NA	105	2,832	147
March	1,991	42	926	NA	59	2,900	119
April	2,169	73	518	NA	47	2,713	103
May	2,444	141	-193	NA	50	2,341	109
June	2,545	175	-154	NA	40	2,526	114
July	2,600	259	-556	NA	55	2,248	131
August	2,612	302	-403	NA	43	2,467	144
September	2,725	253	-374	NA	37	2,568	155
October	2,682	255	-275	NA	55	2,606	163
November	2,679	189	65	NA	54	2,879	161
December	2,524	212	675	NA	54	3,358	140
AVERAGE	**2,454**	**169**	**124**	**NA**	**64**	**2,682**	
1984 January	2,585	270	676	NA	40	3,490	119
February	2,864	458	-439	NA	41	2,842	132
March*	R 2,480	R115	R 727	NA	66	R 3,256	R 110
April**	*2,405*	*164*	*383*	NA	NA	*2,912*	*99*
AVERAGE	**2,580**	**249**	**349**	**NA**	**NA**	**3,131**	

---

[1] Stocks are totals as of end of period.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 4.

[4] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

[5] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

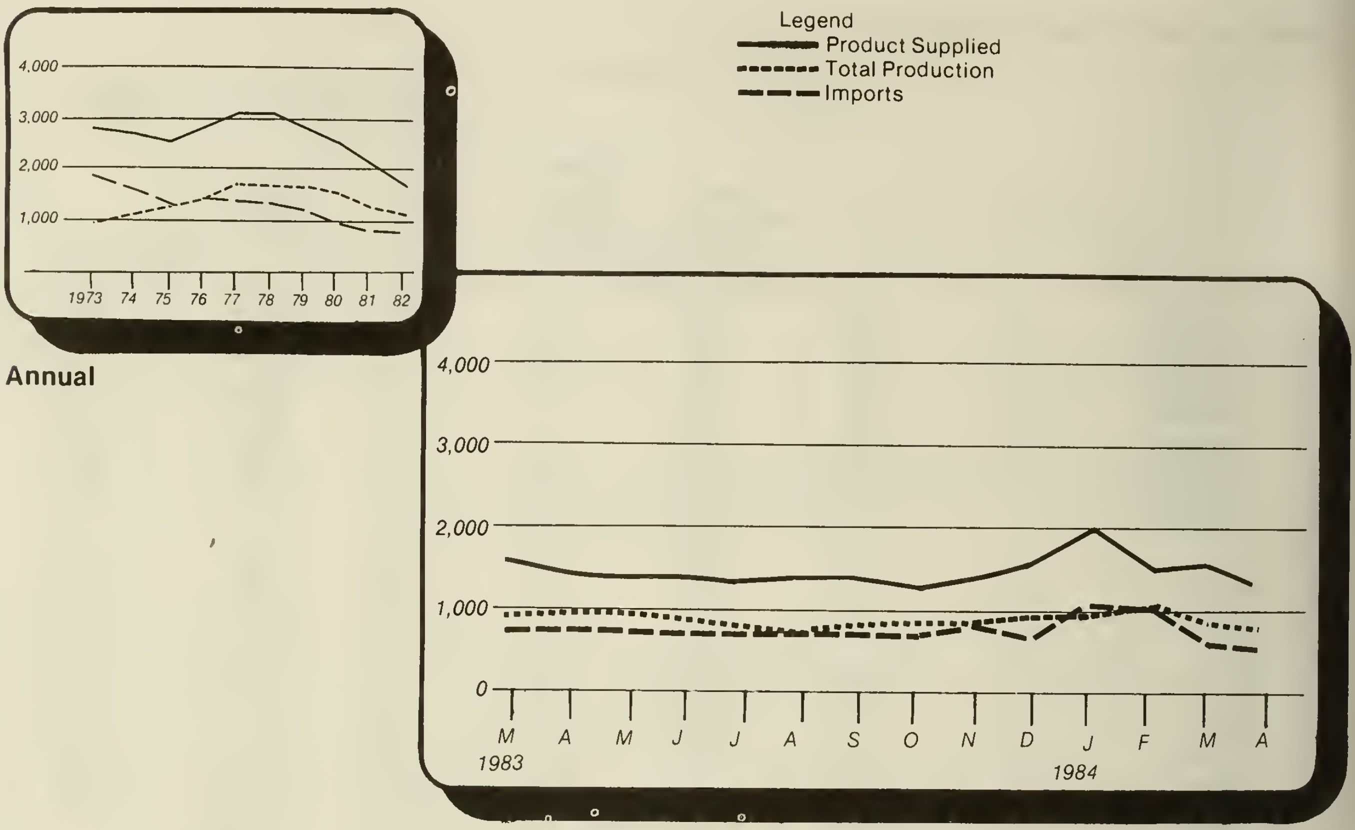
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Residual Fuel Oil Supply and Disposition

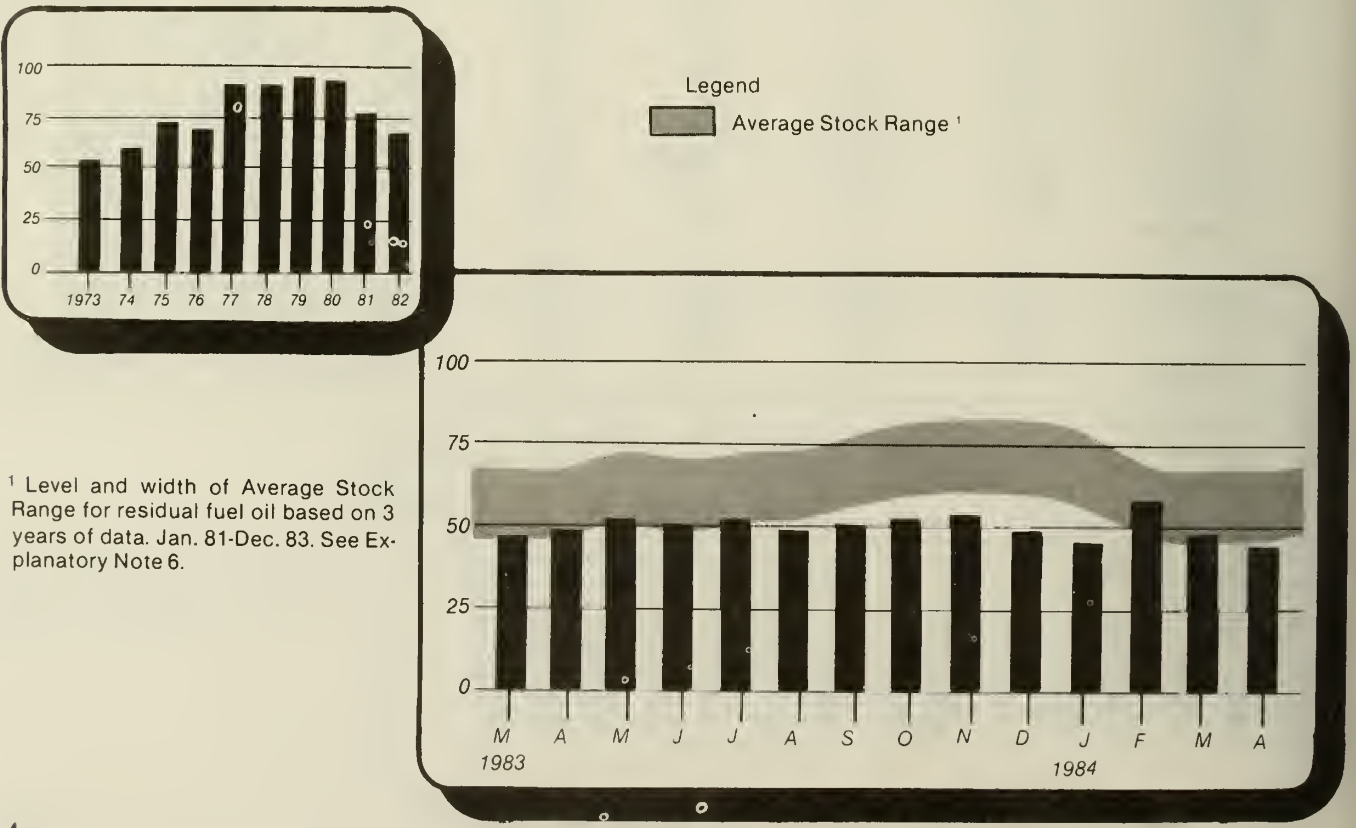
(Thousand Barrels Per Day)



Monthly

Residual Fuel Oil Ending Stocks

(Million Barrels)



Monthly

[1] Level and width of Average Stock Range for residual fuel oil based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

Residual Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks[1]
		Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Products Supplied[3]	
		Thousand Barrels per Day						Million Barrels
1973	**AVERAGE**	**971**	**1,853**	**5**	**17**	**23**	**2,822**	**53**
1974	**AVERAGE**	**1,070**	**1,587**	**-17**	**13**	**14**	**2,639**	[4] **60**
1975	**AVERAGE**	**1,235**	**1,223**	[4] **2**	**15**	**15**	**2,462**	**74**
1976	**AVERAGE**	**1,377**	**1,413**	**5**	**17**	**12**	**2,801**	**72**
1977	**AVERAGE**	**1,754**	**1,359**	**-48**	**13**	**6**	**3,071**	**90**
1978	**AVERAGE**	**1,667**	**1,355**	**-1**	**13**	**13**	**3,023**	**90**
1979	**AVERAGE**	**1,687**	**1,151**	**-15**	**12**	**9**	**2,826**	**96**
1980	**AVERAGE**	**1,580**	**939**	**10**	**12**	**33**	**2,508**	[4] **92**
1981	**AVERAGE**[5]	**1,321**	**800**	[4] **37**	**48**	**118**	**2,088**	**78**
1982	January	1,235	831	301	53	235	2,185	69
	February	1,186	956	363	53	213	2,344	58
	March	1,123	912	12	53	197	1,903	58
	April	1,166	788	150	52	234	1,923	54
	May	1,128	742	-172	52	191	1,560	59
	June	1,074	652	-57	50	217	1,501	61
	July	1,028	657	56	49	239	1,550	59
	August	965	551	203	47	235	1,531	53
	September	1,008	872	-306	44	148	1,470	62
	October	955	783	-57	43	234	1,490	64
	November	989	837	-94	43	182	1,591	66
	December	989	747	6	43	186	1,598	[4] 66
	AVERAGE	**1,070**	**776**	**32**	**48**	**209**	**1,716**	
1983	January	935	691	[4] **243**	NA	294	1,574	61
	February	857	632	270	NA	191	1,568	53
	March	833	686	220	NA	169	1,569	46
	April	942	743	-10	NA	310	1,364	47
	May	930	709	-139	NA	190	1,310	51
	June	832	676	28	NA	219	1,317	50
	July	771	682	-58	NA	90	1,306	52
	August	706	705	115	NA	165	1,362	48
	September	815	690	-47	NA	134	1,324	50
	October	799	634	-56	NA	153	1,224	51
	November	848	777	-101	NA	167	1,358	54
	December	893	646	173	NA	141	1,570	49
	AVERAGE	**846**	**689**	**52**	**NA**	**185**	**1,403**	
1984	January	953	1,061	119	NA	151	1,981	45
	February	1,003	1,107	-420	NA	87	1,602	58
	March*	R 887	R 633	R 321	NA	204	R 1,637	48
	April**	*785*	*520*	*119*	NA	NA	*1,311*	*44*
	AVERAGE	**906**	**828**	**42**	**NA**	**NA**	**1,636**	

---

[1] Stocks are totals as of end of period.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 4.

[4] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

[5] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

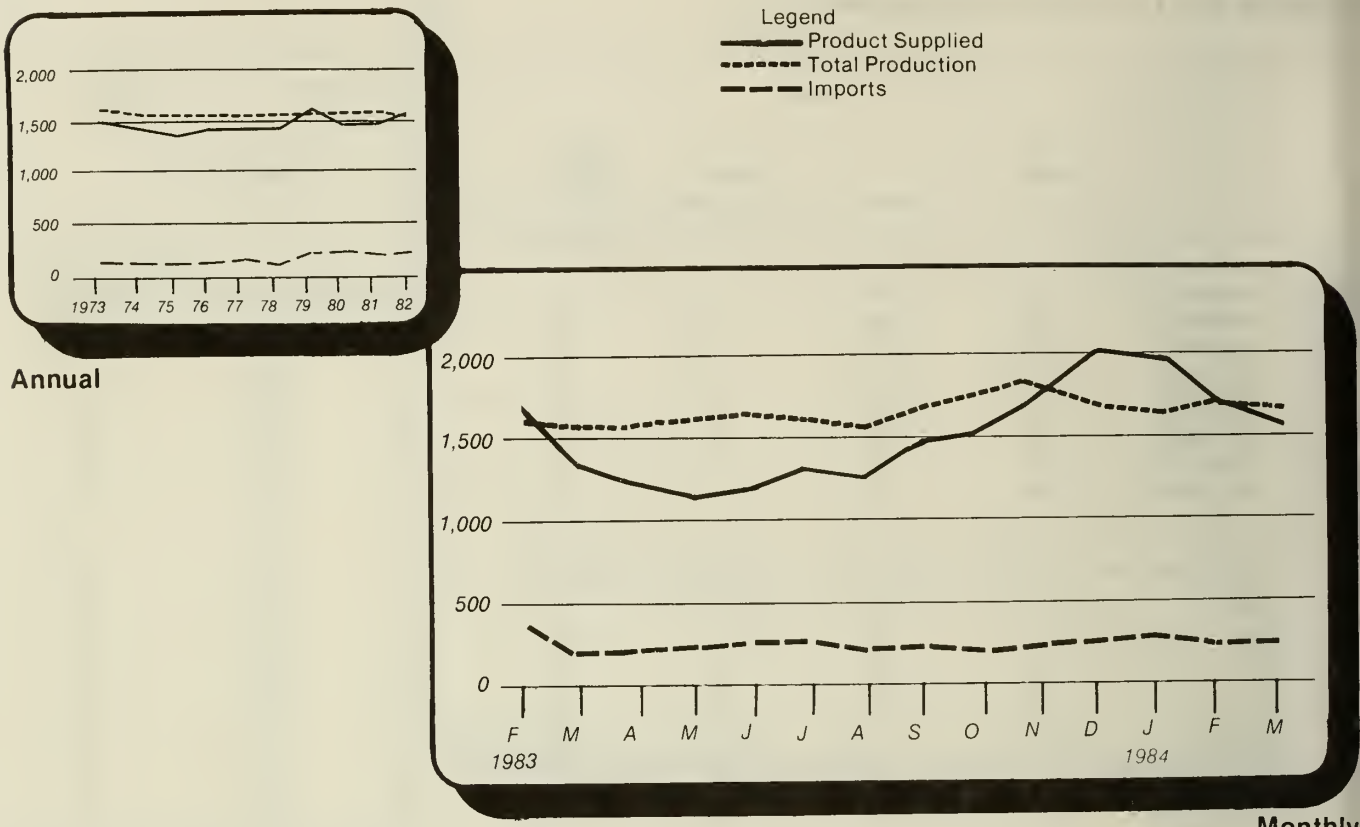
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

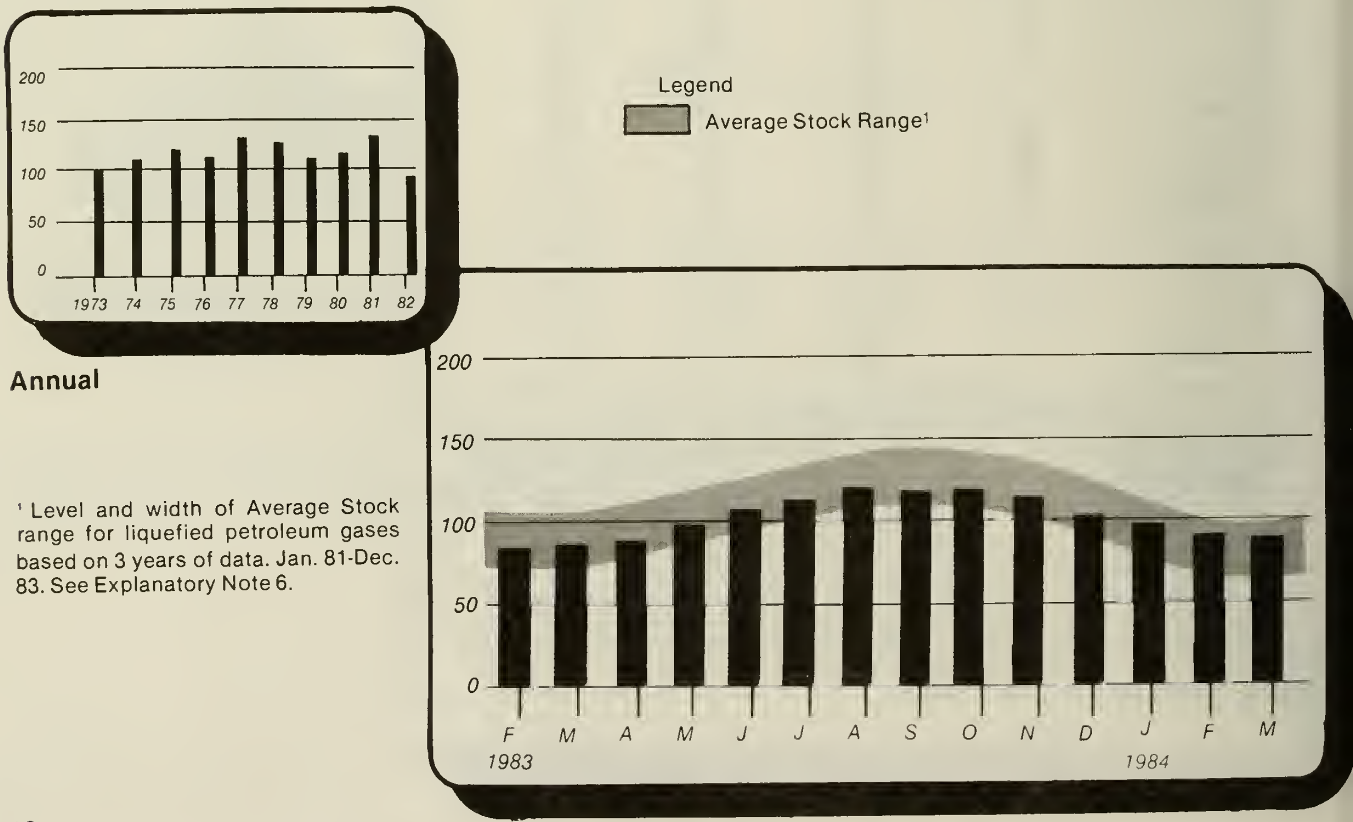
Liquefied Petroleum Gases Supply and Disposition

(Thousand Barrels Per Day)



Liquefied Petroleum Gases Ending Stocks

(Million Barrels)



---

[1] Level and width of Average Stock range for liquefied petroleum gases based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

Liquefied Petroleum Gases[1] Supply and Disposition

		Supply			Disposition		Ending Stocks[2]
	Total Production	Imports	Stock Withdrawal[3]	Refinery Inputs	Exports	Products Supplied	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**1,600**	**132**	**-35**	**220**	**27**	**1,449**	**99**
1974 AVERAGE	**1,565**	**123**	**-38**	**220**	**25**	**1,406**	[4] **113**
1975 AVERAGE	**1,527**	**112**	[4] **-35**	**246**	**26**	**1,333**	**125**
1976 AVERAGE	**1,535**	**130**	**24**	**260**	**25**	**1,404**	**116**
1977 AVERAGE	**1,566**	**161**	**-55**	**233**	**18**	**1,422**	**136**
1978 AVERAGE	**1,537**	**123**	**12**	**239**	**20**	**1,413**	**132**
1979 AVERAGE	**1,556**	**217**	**70**	**236**	**15**	**1,592**	**111**
1980 AVERAGE	**1,535**	**216**	**-27**	**233**	**21**	**1,469**	[4] **120**
1981 AVERAGE	**1,571**	**244**	[4] **-18**	**289**	**42**	**1,466**	**135**
1982 January	1,565	314	443	391	67	1,863	121
February	1,466	291	243	327	51	1,621	114
March	1,544	223	211	289	74	1,615	108
April	1,506	188	98	257	77	1,458	105
May	1,565	186	-71	234	43	1,403	107
June	1,515	192	-86	262	106	1,254	109
July	1,476	227	-13	253	37	1,399	110
August	1,511	125	-45	254	61	1,276	111
September	1,538	247	37	274	85	1,463	110
October	1,517	194	97	306	81	1,421	107
November	1,542	267	175	363	37	1,583	102
December	1,580	258	256	395	56	1,642	[4] 94
AVERAGE	**1,528**	**226**	**111**	**300**	**65**	**1,499**	
1983 January	1,662	240	[4] 618	313	118	2,088	84
February	1,560	305	84	237	76	1,636	81
March	1,517	166	-51	189	127	1,316	83
April	1,531	124	-107	198	116	1,232	86
May	1,545	167	-326	207	84	1,094	96
June	1,593	172	-333	205	59	1,169	106
July	1,571	191	-206	217	55	1,284	112
August	1,505	160	-183	229	29	1,225	118
September	1,625	178	-23	236	86	1,457	119
October	1,688	160	-61	268	32	1,487	121
November	1,784	180	78	361	33	1,648	118
December	1,644	247	575	358	66	2,043	[4] 101
AVERAGE	**1,602**	**190**	**6**	**252**	**73**	**1,473**	
1984 January	1,610	269	[4] 470	333	23	1,993	93
February	1,690	237	146	323	41	1,708	89
March*	1,685	241	12	289	68	1,581	89
AVERAGE	**1,661**	**249**	**211**	**315**	**44**	**1,762**	

---

[1] Includes ethane, propane, normal butane, and isobutane.
Beginning in January 1984, unfractionated stream is reported by individual product.

[2] Stocks are totals as of end of period.

[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[4] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

* See Explanatory Note 9.5.

Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Other Petroleum Products[1] Supply and Disposition

		Supply			Disposition			Ending Stocks[2]
		Total Production	Imports	Stock Withdrawal[3]	Refinery Inputs	Exports	Products Supplied	
		Thousand Barrels per Day						Million Barrels
1973	AVERAGE	3,693	502	-9	750	166	3,270	208
1974	AVERAGE	3,558	432	-28	665	174	3,123	[4] 218
1975	AVERAGE	3,424	277	[4] -2	537	160	3,002	219
1976	AVERAGE	3,643	206	-5	524	175	3,145	220
1977	AVERAGE	3,912	205	-27	514	165	3,410	230
1978	AVERAGE	4,046	166	14	492	167	3,568	225
1979	AVERAGE	4,153	195	-37	352	209	3,749	238
1980	AVERAGE	3,956	210	-23	311	198	3,634	[4] 247
1981	AVERAGE	3,739	226	[4] 46	723	199	3,088	282
1982	January	3,171	269	-7	624	180	2,631	282
	February	3,403	305	-153	663	138	2,755	287
	March	3,466	243	-191	725	161	2,631	293
	April	3,408	309	73	796	204	2,790	290
	May	3,317	318	184	824	210	2,785	285
	June	3,547	315	123	812	216	2,954	281
	July	3,660	408	-1	856	187	3,023	281
	August	3,583	346	217	743	202	3,201	274
	September	3,533	375	105	749	213	3,051	271
	October	3,529	383	244	915	266	2,976	264
	November	3,498	423	-28	837	269	2,786	264
	December	3,324	313	366	885	275	2,842	[4] 253
	AVERAGE	3,453	334	80	787	211	2,869	
1983	January	3,222	297	[4] -371	570	271	2,307	271
	February	3,270	287	-1	680	232	2,645	271
	March	3,400	298	-94	570	249	2,786	273
	April	3,363	377	3	596	247	2,901	273
	May	3,448	364	26	694	242	2,902	273
	June	3,674	427	99	715	292	3,197	270
	July	3,703	393	106	757	209	3,237	266
	August	3,774	435	23	689	242	3,302	266
	September	3,861	460	-31	768	236	3,287	267
	October	3,579	427	-124	701	195	2,985	270
	November	3,560	442	101	912	238	2,955	267
	December	3,106	450	387	877	257	2,808	[4] 255
	AVERAGE	3,498	388	10	711	242	2,943	
1984	January	3,391	486	[4] -177	561	207	2,931	253
	February	3,582	586	-256	751	225	2,935	261
	March*	3,510	466	-218	530	258	2,969	268
	AVERAGE	3,492	511	-216	611	230	2,945	

---

[1] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[2] Stocks are totals as of end of period.

[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[4] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

* See Explanatory Note 9.6.

Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Sources

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual."
2. 1977 through 1980: Energy Information Administration (EIA), *Energy Data Reports*, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual," and unleaded gasoline data from *Monthly Petroleum Statistics Report*.
3. January 1981 through December 1982: EIA, *Petroleum Supply Annual*.
4. January 1983 through March 1984: Detailed statistics in appropriate issues of the Petroleum Supply Monthly. (See Explanatory Notes 9.1 through 9.6).
5. April 1984: Estimates based on EIA weekly data (except domestic crude oil production)(see Explanatory Note 1.1).
6. January 1983 through April 1984: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey. (See Explanatory Note 3).

Detailed Statistics

able 1. U.S. Petroleum Balance, March 1984

	Current Month		Year-to-date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)				
Field Production				
(1) Alaska	E 53,940	1,740	E 158,374	1,740
(2) Lower 48 States	E 216,312	6,976	E 633,338	6,960
(3) Total U.S.	E 270,252	8,718	E 791,712	6,700
Net Imports				
(4) Imports (Gross Excluding SPR)	102,519	3,307	273,375	3,004
(5) SPR Imports	4,575	146	13,224	145
(8) Exports	7,304	236	17,397	191
(7) Imports (Net Including SPR)	99,791	3,219	269,201	2,958
Other Sources				
(6) SPR Withdrawal (+) or Addition (-)	-4,556	-147	-12,705	-140
(9) Other Stock Withdrawal (+) or Addition (-)	4,485	145	7,435	82
10) Product Supplied and Losses	-1,994	-64	-5,923	-65
11) Unaccounted for [1]	2,034	66	30,141	331
12) Total Other Sources	-31	-1	18,948	208
13) Crude Input to Refineries	370,012	11,936	1,079,661	11,887
(13) = (3) + (7) + (12)				
Natural Gas Plant Liquids (NGPL)				
14) Field Production	49,222	1,588	145,618	1,600
15) Net Imports [2]	1,142	37	3,494	36
16) Stock Withdrawal (+) or Addition (-) [2]	359	12	822	9
17) Total NGPL Supply	50,723	1,636	149,934	1,648
Other Liquids				
Unfinished Oils and Gasoline Blending Components, Total				
16) Stock Withdrawal (+) or Addition (-)	-5,925	-191	-11,757	-129
19) Imports	7,740	250	25,697	282
20) Other Hydrocarbons and Alcohol New Supply (Field Production)	1,494	48	4,259	47
21) Refinery Processing Gain [1]	16,933	546	49,165	540
22) Crude Oil Product Supplied	1,918	62	5,791	64
23) Total Other Liquids	22,160	715	73,155	804
(23) = (18) through (22)				
(24) Total Production of Products [3]	442,895	14,287	1,302,949	14,318
(24) = (13) + (17) + (23)				
Net Imports of Refined Products [3]				
(25) Imports (Gross)	46,690	1,506	176,187	1,936
(26) Exports	18,572	599	43,104	474
(27) Imports (Net)	28,117	907	133,083	1,462
(26) Total New Supply of Products	471,012	15,194	1,436,033	15,781
(28) = (24) + (27)				
(29) Refined Products Stock Withdrawal (+) or Addition (-) [3]	25,502	823	25,271	276
(30) Total Petroleum Products Supplied for Domestic Use	496,514	16,017	1,461,304	18,056
(30) = (26) + (29)				
(31) Finished Motor Gasoline	201,869	6,512	577,039	6,341
(32) Distillate Fuel Oil	100,932	3,256	291,534	3,204
(33) Residual Fuel Oil	50,759	1,637	158,615	1,743
(34) Liquefied Petroleum Gases	48,996	1,581	160,298	1,782
(35) Other [4]	92,040	2,969	268,027	2,945
(38) Crude Oil	1,916	62	5,791	64
(37) Total Product Supplied	496,514	18,017	1,461,304	16,056
(37) = (31) through (36)				
Ending Stocks, All Oils				
(38) Crude Oil and Lease Condensate (Excluding SPR)	335,741	—	335,741	—
(39) Strategic Petroleum Reserve (SPR)	391,794	—	391,794	—
(40) Unfinished Oils	115,668	—	115,668	—
(41) Gasoline Blending Components [5]	41,109	—	41,109	—
(42) Pentanes Plus	7,943	—	7,943	—
(43) Finished Refined Products [3]	551,779	—	551,779	—
(44) Total Stocks	1,444,034	—	1,444,034	—

[1] A balancing item.

[2] Includes products in the pentanes plus category only.

[3] For products included see Explanatory Note 9.7.

[4] Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil and liquefied petroleum gases.

[5] Includes other hydrocarbons and alcohol.

E = Estimated.

— Not Applicable.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1, 2 and 9.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, March 1984
(Thousand Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 270,252	0	107,094	-71	2,034	76	370,012	7,304	1,918	727,535
Natural Gas Liquids and LRGs	48,982	11,757	8,777	729	0	0	15,584	2,283	52,378	96,519
Pentanes Plus	8,507	0	1,310	359	0	0	6,626	168	3,382	7,943
Liquefied Petroleum Gases	40,475	11,757	7,467	370	0	0	8,958	2,115	48,996	88,576
Ethane	15,488	827	3,565	-727	0	0	78	336	18,739	21,404
Propane	15,882	8,623	2,023	1,309	0	0	126	1,228	26,483	40,841
Normal Butane	6,149	2,334	1,137	-741	0	0	5,088	384	3,408	16,937
Isobutane	2,956	-27	742	529	0	0	3,666	168	366	9,394
Other Liquids	1,494	0	7,740	-5,925	0	0	9,814	0	-6,505	156,777
Other Hydrocarbons and Alcohol	1,494	0	0	99	0	0	1,593	0	0	247
Unfinished Oils	0	0	4,969	-6,030	0	0	3,217	0	-4,278	115,668
Motor Gasoline Blending Components	0	0	2,771	20	0	0	5,013	0	-2,222	40,460
Aviation Gasoline Blending Components	0	0	0	-14	0	0	-9	0	-5	402
Finished Petroleum Products	240	400,586	39,222	25,132	0	0	0	16,457	448,723	463,203
Finished Motor Gasoline	119	197,521	10,635	-6,121	0	0	0	285	201,869	202,798
Finished Leaded Motor Gasoline	77	81,784	6,098	-1,971	0	0	0	285	85,703	98,472
Finished Unleaded Motor Gasoline	42	115,737	4,537	-4,150	0	0	0	0	116,166	104,326
Finished Aviation Gasoline	0	526	2	-83	0	0	0	0	445	2,722
Naphtha-Type Jet Fuel	0	6,579	347	-570	0	0	0	(s)	6,356	6,719
Kerosene-Type Jet Fuel	0	27,671	1,051	-1,002	0	0	0	21	27,699	33,901
Kerosene	1	2,464	43	1,419	0	0	0	1	3,927	7,835
Distillate Fuel Oil	41	76,824	3,566	22,537	0	0	0	2,036	100,932	109,644
Residual Fuel Oil	0	27,497	19,623	9,959	0	0	0	6,320	50,759	47,639
Naphtha < 400 Deg. for Petro. Feed. Use	0	4,475	1,261	-389	0	0	0	304	5,042	2,064
Other Oils > 400 Deg. for Petro. Feed. Use	0	9,401	0	-22	0	0	0	370	9,009	1,956
Special Naphthas	0	1,659	1,792	78	0	0	0	66	3,463	3,056
Lubricants	0	4,924	422	556	0	0	0	714	5,188	11,180
Waxes	0	487	25	-8	0	0	0	50	455	665
Petroleum Coke	0	13,983	0	644	0	0	0	6,232	8,395	5,680
Asphalt and Road Oil	0	7,834	30	-1,645	0	0	0	19	6,200	25,200
Still Gas	0	16,911	0	0	0	0	0	0	16,911	0
Miscellaneous Products	79	1,830	425	-221	0	0	0	39	2,073	2,144
Total	320,968	412,343	162,834	19,865	2,034	76	395,410	26,044	496,514	1,444,034

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products, January - March 1984
(Thousand Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 791,712	0	286,598	-5,270	30,141	132	1,079,861	17,397	5,791	727,535
Natural Gas Liquids and LRGs	145,076	31,745	26,430	20,003	0	0	47,237	4,285	171,732	96,519
Pentanes Plus	25,686	0	3,742	822	0	0	18,568	248	11,434	7,943
Liquefied Petroleum Gases	119,390	31,745	22,688	19,181	0	0	28,669	4,037	160,298	88,576
Ethane	45,634	2,245	9,433	-25	0	0	196	496	56,595	21,404
Propane	47,022	24,783	7,426	14,439	0	0	411	2,466	90,793	40,841
Normal Butane	18,136	4,759	3,523	3,452	0	0	17,363	826	11,681	16,937
Isobutane	8,598	-42	2,305	1,315	0	0	10,699	248	1,229	9,394
Other Liquids	4,259	0	25,697	-11,757	0	0	37,032	0	-18,833	156,777
Other Hydrocarbons and Alcohol	4,259	0	0	38	0	0	4,297	0	0	247
Unfinished Oils	0	0	20,428	-8,170	0	0	21,820	0	-9,562	115,668
Motor Gasoline Blending Components	0	0	5,269	-3,540	0	0	10,996	0	-9,267	40,460
Aviation Gasoline Blending Components	0	0	0	-85	0	0	-81	0	-4	402
Finished Petroleum Products	542	1,181,550	153,499	6,090	0	0	0	39,067	1,302,614	463,203
Finished Motor Gasoline	256	567,823	26,623	-17,303	0	0	0	361	577,039	202,798
Finished Leaded Motor Gasoline	168	235,699	14,011	-4,388	0	0	0	361	245,129	98,472
Finished Unleaded Motor Gasoline	88	332,124	12,612	-12,915	0	0	0	0	331,909	104,326
Finished Aviation Gasoline	0	1,951	3	-431	0	0	0	0	1,523	2,722
Naphtha-Type Jet Fuel	0	17,726	891	-506	0	0	0	63	18,048	6,719
Kerosene-Type Jet Fuel	0	81,681	5,604	-1,533	0	0	0	408	85,344	33,901
Kerosene	5	12,462	1,139	25	0	0	0	3	13,628	7,835
Distillate Fuel Oil	116	239,931	25,216	30,758	0	0	0	4,487	291,534	109,644
Residual Fuel Oil	0	86,102	84,594	1,469	0	0	0	13,550	158,615	47,639
Naphtha < 400 Deg. for Petro. Feed. Use	0	12,177	3,282	-352	0	0	0	639	14,468	2,064
Other Oils > 400 Deg. for Petro. Feed. Use	0	24,236	0	-199	0	0	0	1,120	22,917	1,956
Special Naphthas	-50	5,026	3,901	97	0	0	0	153	8,821	3,056
Lubricants	0	13,796	1,076	895	0	0	0	1,359	14,408	11,180
Waxes	0	1,275	113	112	0	0	0	113	1,387	665
Petroleum Coke	0	40,536	0	-199	0	0	0	16,681	23,656	5,680
Asphalt and Road Oil	0	21,276	52	-6,408	0	0	0	36	14,884	25,200
Still Gas	0	49,633	0	0	0	0	0	0	49,633	0
Miscellaneous Products	215	5,919	1,004	-335	0	0	0	94	6,709	2,144
Total	941,589	1,213,295	492,224	9,066	30,141	132	1,164,130	60,749	1,461,304	1,444,034

[1] Unaccounted for crude oil is a balancing item.
(s) = Less than 500 barrels.
E = Estimated.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, March 1984
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	**E 8,718**	**0**	**3,455**	**-2**	**66**	**2**	**11,936**	**236**	**62**
Natural Gas Liquids and LRGs	**1,580**	**379**	**283**	**24**	**0**	**0**	**503**	**74**	**1,690**
Pentanes Plus	274	0	42	12	0	0	214	5	109
Liquefied Petroleum Gases	1,306	379	241	12	0	0	289	68	1,581
Ethane	500	27	115	-23	0	0	3	11	604
Propane	512	278	65	42	0	0	4	40	854
Normal Butane	198	75	37	-24	0	0	164	12	110
Isobutane	95	-1	24	17	0	0	118	5	12
Other Liquids	**48**	**0**	**250**	**-191**	**0**	**0**	**317**	**0**	**-210**
Other Hydrocarbons and Alcohol	48	0	0	3	0	0	51	0	0
Unfinished Oils	0	0	160	-195	0	0	104	0	-138
Motor Gasoline Blending Components	0	0	89	1	0	0	162	0	-72
Aviation Gasoline Blending Components	0	0	0	(s)	0	0	(s)	0	(s)
Finished Petroleum Products	**8**	**12,922**	**1,265**	**811**	**0**	**0**	**0**	**531**	**14,475**
Finished Motor Gasoline	4	6,372	343	-197	0	0	0	9	6,512
Finished Leaded Motor Gasoline	2	2,638	197	-64	0	0	0	9	2,765
Finished Unleaded Motor Gasoline	1	3,733	146	-134	0	0	0	0	3,747
Finished Aviation Gasoline	0	17	(s)	-3	0	0	0	0	14
Naphtha-Type Jet Fuel	0	212	11	-18	0	0	0	(s)	205
Kerosene-Type Jet Fuel	0	893	34	-32	0	0	0	1	894
Kerosene	(s)	79	1	46	0	0	0	(s)	127
Distillate Fuel Oil	1	2,478	115	727	0	0	0	66	3,256
Residual Fuel Oil	0	887	633	321	0	0	0	204	1,637
Naphtha < 400 Deg. for Petro. Feed. Use	0	144	41	-13	0	0	0	10	163
Other Oils > 400 Deg. for Petro. Feed. Use	0	303	0	-1	0	0	0	12	291
Special Naphthas	0	54	58	3	0	0	0	2	112
Lubricants	0	159	14	18	0	0	0	23	167
Waxes	0	16	1	(s)	0	0	0	2	15
Petroleum Coke	0	451	0	21	0	0	0	201	271
Asphalt and Road Oil	0	253	1	-53	0	0	0	1	200
Still Gas	0	546	0	0	0	0	0	0	546
Miscellaneous Products	3	59	14	-7	0	0	0	1	67
Total	**10,354**	**13,301**	**5,253**	**641**	**66**	**2**	**12,755**	**840**	**16,017**

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - March 1984
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,700	0	3,149	-58	331	1	11,867	191	64
Natural Gas Liquids and LRGs	**1,594**	**349**	**290**	**220**	**0**	**0**	**519**	**47**	**1,887**
Pentanes Plus	282	0	41	9	0	0	204	3	126
Liquefied Petroleum Gases	1,312	349	249	211	0	0	315	44	1,762
Ethane	501	25	104	(s)	0	0	2	5	622
Propane	517	272	82	159	0	0	5	27	998
Normal Butane	199	52	39	38	0	0	191	9	128
Isobutane	94	(s)	25	14	0	0	118	3	14
Other Liquids	**47**	**0**	**282**	**-129**	**0**	**0**	**407**	**0**	**-207**
Other Hydrocarbons and Alcohol	47	0	0	(s)	0	0	47	0	0
Unfinished Oils	0	0	224	-90	0	0	240	0	-105
Motor Gasoline Blending Components	0	0	58	-39	0	0	121	0	-102
Aviation Gasoline Blending Components	0	0	0	-1	0	0	-1	0	(s)
Finished Petroleum Products	**6**	**12,984**	**1,687**	**67**	**0**	**0**	**0**	**429**	**14,314**
Finished Motor Gasoline	3	6,240	293	-190	0	0	0	4	6,341
Finished Leaded Motor Gasoline	2	2,590	154	-48	0	0	0	4	2,694
Finished Unleaded Motor Gasoline	1	3,650	139	-142	0	0	0	0	3,647
Finished Aviation Gasoline	0	21	(s)	-5	0	0	0	0	17
Naphtha-Type Jet Fuel	0	195	10	-6	0	0	0	1	198
Kerosene-Type Jet Fuel	0	898	62	-17	0	0	0	4	938
Kerosene	(s)	137	13	(s)	0	0	0	(s)	150
Distillate Fuel Oil	1	2,637	277	338	0	0	0	49	3,204
Residual Fuel Oil	0	946	930	16	0	0	0	149	1,743
Naphtha < 400 Deg. for Petro. Feed. Use	0	134	36	-4	0	0	0	7	159
Other Oils > 400 Deg. for Petro. Feed. Use	0	266	0	-2	0	0	0	12	252
Special Naphthas	-1	55	43	1	0	0	0	2	97
Lubricants	0	152	12	10	0	0	0	15	158
Waxes	0	14	1	1	0	0	0	1	15
Petroleum Coke	0	445	0	-2	0	0	0	183	260
Asphalt and Road Oil	0	234	1	-70	0	0	0	(s)	164
Still Gas	0	545	0	0	0	0	0	0	545
Miscellaneous Products	2	65	11	-4	0	0	0	1	74
Total	10,347	13,333	5,409	100	331	1	12,793	668	16,058

---

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 6. PAD District I, Supply and Disposition of Crude Oil and Petroleum Products, March 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Produc- tion	Refinery Produc- tion	Imports	Stock With- drawal (+) or Addi- tion (-)	Unac- counted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 2,251	0	27,304	29	-2,366	4,858	15	32,061	0	0	14,495
Natural Gas Liquids and LRGs	939	1,366	1,087	389	0	2,577	0	206	42	6,111	2,772
Liquefied Petroleum Gases	835	1,366	435	381	0	2,577	0	165	42	5,387	2,724
Pentanes Plus	104	0	653	8	0	0	0	41	0	724	48
Other Liquids	-67	0	2,546	-1,824	0	714	0	2,513	0	-1,144	19,045
Other Hydrocarbons and Alcohol	-67	0	0	76	0	0	0	9	0	0	31
Unfinished Oils	0	0	1,100	-1,627	0	714	0	2,254	0	-2,067	14,306
Motor Gasoline Blending Components	0	0	1,446	-250	0	0	0	273	0	923	4,685
Aviation Gasoline Blending Components	0	0	0	-23	0	0	0	-23	0	0	23
Finished Petroleum Products	108	35,270	31,484	24,912	0	69,628	0	0	1,089	160,314	145,460
Finished Motor Gasoline	108	17,488	8,935	242	0	41,015	0	0	25	67,764	60,549
Finished Leaded Motor Gasoline	66	5,472	5,183	435	0	14,589	0	0	25	25,720	28,478
Finished Unleaded Motor Gasoline	42	12,016	3,753	-193	0	26,426	0	0	0	42,044	32,071
Finished Aviation Gasoline	0	0	1	36	0	99	0	0	0	136	462
Naphtha-Type Jet Fuel	0	576	347	-183	0	406	0	0	(s)	1,146	953
Kerosene-Type Jet Fuel	0	614	1,024	693	0	9,050	0	0	(s)	11,381	7,738
Kerosene	0	59	43	976	0	356	0	0	1	1,434	3,517
Distillate Fuel Oil	0	8,124	3,270	17,054	0	16,586	0	0	405	44,629	37,302
Residual Fuel Oil	0	3,327	16,766	6,353	0	651	0	0	181	26,916	24,444
Naphtha and Other Oils for Petro. Feed.	0	400	238	23	0	54	0	0	48	666	307
Special Naphthas	0	32	276	8	0	314	0	0	3	627	614
Lubricants	0	620	232	-21	0	622	0	0	198	1,255	3,128
Waxes	0	69	11	1	0	65	0	0	5	141	115
Petroleum Coke	0	1,089	0	137	0	0	0	0	202	1,024	872
Asphalt and Road Oil	0	1,291	30	-503	0	152	0	0	1	969	5,142
Still Gas	0	1,456	0	0	0	0	0	0	0	1,456	0
Miscellaneous Products	0	125	309	96	0	258	0	0	18	770	317
Total	3,231	36,636	62,421	23,506	-2,366	77,777	15	34,780	1,130	165,280	181,772

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 7. PAD District II, Supply and Disposition of Crude Oil and Petroleum Products, March 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 32,457	0	17,162	-751	35,903	3,341	26	87,320	766	0	74,322
Natural Gas Liquids and LRGs	8,979	2,539	5,529	1,115	0	2,721	0	5,061	1,121	14,701	29,535
Liquefied Petroleum Gases	7,695	2,539	5,529	1,110	0	2,108	0	3,290	953	14,738	26,237
Pentanes Plus	1,284	0	0	5	0	613	0	1,771	168	-37	3,298
Other Liquids	188	0	703	-1,893	0	-82	0	-953	0	-131	27,298
Other Hydrocarbons and Alcohol	188	0	0	18	0	0	0	206	0	0	113
Unfinished Oils	0	0	646	-2,036	0	-82	0	-1,891	0	419	19,003
Motor Gasoline Blending Components	0	0	57	168	0	0	0	775	0	-550	7,991
Aviation Gasoline Blending Components	0	0	0	-43	0	0	0	-43	0	0	191
Finished Petroleum Products	24	92,389	839	-340	0	20,245	0	0	315	112,842	128,425
Finished Motor Gasoline	0	53,768	207	-2,841	0	13,604	0	0	0	64,738	63,129
Finished Leaded Motor Gasoline	0	23,922	112	-1,744	0	6,948	0	0	0	29,238	32,568
Finished Unleaded Motor Gasoline	0	29,846	95	-1,097	0	6,656	0	0	0	35,500	30,561
Finished Aviation Gasoline	0	61	0	-19	0	108	0	0	0	150	681
Naphtha-Type Jet Fuel	0	887	0	-1	0	80	0	0	0	966	1,424
Kerosene-Type Jet Fuel	0	4,365	0	-248	0	1,704	0	0	0	5,821	7,775
Kerosene	0	593	0	287	0	76	0	0	0	956	1,758
Distillate Fuel Oil	0	18,328	61	3,552	0	4,281	0	0	51	26,172	33,497
Residual Fuel Oil	0	2,526	389	116	0	-92	0	0	0	2,939	4,064
Naphtha and Other Oils for Petro. Feed.	0	923	26	-17	0	58	0	0	62	928	189
Special Naphthas	0	462	45	28	0	123	0	0	20	639	476
Lubricants	0	865	13	94	0	249	0	0	23	1,198	2,003
Waxes	0	43	5	0	0	0	0	0	(s)	47	67
Petroleum Coke	0	3,232	0	-75	0	0	0	0	156	3,001	1,280
Asphalt and Road Oil	0	2,489	0	-1,059	0	186	0	0	1	1,615	11,714
Still Gas	0	3,614	0	0	0	0	0	0	0	3,614	0
Miscellaneous Products	24	233	94	-157	0	-132	0	0	2	60	368
Total	41,648	94,928	24,233	-1,869	35,903	26,225	26	91,428	2,202	127,412	259,580

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 8. PAD District III, Supply and Disposition of Crude Oil and Petroleum Products, March 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Produc-tion	Refinery Produc-tion	Imports	Stock With-drawal (+) or Addi-tion (-)	Unac-counted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 129,896	0	57,069	-4,083	-21,477	10,661	10	172,030	(s)	26	543,519
Natural Gas Liquids and LRGs	35,376	6,510	643	-656	0	-3,965	0	8,733	999	28,176	61,591
Liquefied Petroleum Gases	29,515	6,510	619	-996	0	-3,540	0	4,340	999	26,770	57,229
Pentanes Plus	5,861	0	24	340	0	-425	0	4,393	0	1,407	4,362
Other Liquids	1,023	0	3,172	-2,716	0	-714	0	6,644	0	-5,879	71,106
Other Hydrocarbons and Alcohol	1,023	0	0	2	0	0	0	1,025	0	0	99
Unfinished Oils	0	0	2,769	-2,087	0	-714	0	2,562	0	-2,594	53,102
Motor Gasoline Blending Components	0	0	403	-684	0	0	0	2,999	0	-3,280	17,744
Aviation Gasoline Blending Components	0	0	0	53	0	0	0	58	0	-5	161
Finished Petroleum Products	99	188,288	5,409	504	0	-93,367	0	0	11,145	89,787	120,833
Finished Motor Gasoline	7	89,117	869	-4,244	0	-56,389	0	0	190	29,171	53,360
Finished Leaded Motor Gasoline	7	36,180	594	-781	0	-22,416	0	0	190	13,394	24,079
Finished Unleaded Motor Gasoline	0	52,937	275	-3,463	0	-33,973	0	0	0	15,776	29,281
Finished Aviation Gasoline	0	305	0	-66	0	-224	0	0	0	15	902
Naphtha-Type Jet Fuel	0	3,256	0	-102	0	-680	0	0	0	2,474	2,170
Kerosene-Type Jet Fuel	0	15,010	0	-1,541	0	-11,896	0	0	0	1,573	11,834
Kerosene	1	1,573	0	150	0	-432	0	0	0	1,292	2,325
Distillate Fuel Oil	41	35,016	51	2,627	0	-21,255	0	0	1,012	15,468	24,154
Residual Fuel Oil	0	10,558	2,156	2,954	0	-559	0	0	4,286	10,823	9,907
Naphtha and Other Oils for Petro. Feed.	0	11,821	997	-393	0	-112	0	0	467	11,846	2,941
Special Naphthas	0	999	1,286	93	0	-437	0	0	42	1,899	1,673
Lubricants	0	3,049	30	197	0	-854	0	0	458	1,964	4,826
Waxes	0	284	6	-2	0	-65	0	0	41	182	424
Petroleum Coke	0	6,008	0	518	0	0	0	0	4,623	1,903	1,481
Asphalt and Road Oil	0	2,166	0	437	0	-338	0	0	10	2,255	3,744
Still Gas	0	7,838	0	0	0	0	0	0	0	7,838	0
Miscellaneous Products	50	1,288	13	-124	0	-126	0	0	17	1,084	1,092
Total	166,394	194,798	66,293	-6,951	-21,477	-87,385	10	187,407	12,144	112,111	797,049

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 9. PAD District IV, Supply and Disposition of Crude Oil and Petroleum Products, March 1984
(Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 17,168	0	1,002	311	-5,481	0	0	12,991	0	9	14,048
Natural Gas Liquids and LRGs	2,742	150	499	-84	0	-1,333	0	496	0	1,478	1,230
Liquefied Petroleum Gases	1,862	150	376	-70	0	-1,145	0	347	0	826	1,030
Pentanes Plus	880	0	124	-14	0	-188	0	149	0	653	200
Other Liquids	10	0	0	-342	0	0	0	-912	0	580	5,257
Other Hydrocarbons and Alcohol	10	0	0	0	0	0	0	10	0	0	0
Unfinished Oils	0	0	0	-66	0	0	0	-643	0	577	2,529
Motor Gasoline Blending Components	0	0	0	-276	0	0	0	-279	0	3	2,728
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	9	12,884	164	-931	0	300	0	0	3	12,424	14,158
Finished Motor Gasoline	4	6,329	48	19	0	-21	0	0	0	6,379	6,266
Finished Leaded Motor Gasoline	4	3,795	43	-92	0	-159	0	0	0	3,591	4,000
Finished Unleaded Motor Gasoline	0	2,534	5	111	0	138	0	0	0	2,788	2,266
Finished Aviation Gasoline	0	18	1	-1	0	17	0	0	0	35	58
Naphtha-Type Jet Fuel	0	514	0	-45	0	-172	0	0	0	297	354
Kerosene-Type Jet Fuel	0	722	0	-163	0	651	0	0	0	1,210	823
Kerosene	0	17	0	-9	0	0	0	0	0	8	31
Distillate Fuel Oil	0	3,560	94	-178	0	-175	0	0	(s)	3,301	3,403
Residual Fuel Oil	0	421	20	-93	0	0	0	0	0	348	494
Naphtha and Other Oils for Petro. Feed.	0	0	0	1	0	0	0	0	1	(s)	1
Special Naphthas	0	2	(s)	1	0	0	0	0	0	3	8
Lubricants	0	12	(s)	21	0	0	0	0	1	32	63
Waxes	0	10	0	0	0	0	0	0	0	10	0
Petroleum Coke	0	311	0	-24	0	0	0	0	1	286	162
Asphalt and Road Oil	0	533	0	-452	0	0	0	0	0	81	2,481
Still Gas	0	396	0	0	0	0	0	0	0	396	0
Miscellaneous Products	5	39	(s)	-8	0	0	0	0	0	36	14
Total	19,929	13,034	1,666	-1,046	-5,481	-1,033	0	12,575	3	14,491	34,691

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 10. PAD District V, Supply and Disposition of Crude Oil and Petroleum Products, March 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	**E 88,480**	**0**	**4,558**	**4,423**	**-4,545**	**-18,860**	**25**	**65,610**	**8,538**	**1,883**	**81,153**
Natural Gas Liquids and LRGs	**946**	**1,192**	**1,018**	**-35**	**0**	**0**	**0**	**1,088**	**122**	**1,912**	**1,391**
Liquefied Petroleum Gases	568	1,192	508	-55	0	0	0	816	122	1,276	1,356
Pentanes Plus	378	0	510	20	0	0	0	272	0	636	35
Other Liquids	**340**	**0**	**1,320**	**850**	**0**	**82**	**0**	**2,522**	**0**	**70**	**34,071**
Other Hydrocarbons and Alcohol	340	0	0	3	0	0	0	343	0	0	4
Unfinished Oils	0	0	455	-214	0	82	0	935	0	-612	26,728
Motor Gasoline Blending Components	0	0	865	1,062	0	0	0	1,245	0	682	7,312
Aviation Gasoline Blending Components	0	0	0	-1	0	0	0	-1	0	0	27
Finished Petroleum Products	**0**	**71,755**	**1,326**	**987**	**0**	**3,194**	**0**	**0**	**3,905**	**73,356**	**54,327**
Finished Motor Gasoline	0	30,819	576	703	0	1,791	0	0	71	33,818	19,494
Finished Leaded Motor Gasoline	0	12,415	167	211	0	1,038	0	0	71	13,759	9,347
Finished Unleaded Motor Gasoline	0	18,404	410	492	0	753	0	0	0	20,059	10,147
Finished Aviation Gasoline	0	142	0	-33	0	0	0	0	0	109	619
Naphtha-Type Jet Fuel	0	1,346	0	-239	0	366	0	0	0	1,473	1,818
Kerosene-Type Jet Fuel	0	6,960	28	257	0	491	0	0	21	7,714	5,731
Kerosene	0	222	0	15	0	0	0	0	(s)	237	204
Distillate Fuel Oil	0	11,796	88	-518	0	563	0	0	567	11,362	11,288
Residual Fuel Oil	0	10,665	292	629	0	0	0	0	1,853	9,733	8,730
Naphtha and Other Oils for Petro. Feed.	0	732	0	-25	0	0	0	0	97	610	582
Special Naphthas	0	164	184	-52	0	0	0	0	1	295	285
Lubricants	0	378	146	265	0	-17	0	0	33	739	1,160
Waxes	0	81	4	-7	0	0	0	0	3	75	59
Petroleum Coke	0	3,343	0	88	0	0	0	0	1,250	2,181	1,885
Asphalt and Road Oil	0	1,355	0	-68	0	0	0	0	6	1,281	2,119
Still Gas	0	3,607	0	0	0	0	0	0	0	3,607	0
Miscellaneous Products	0	145	8	-28	0	0	0	0	3	122	353
Total	89,766	72,947	8,221	6,225	-4,545	-15,584	25	69,220	10,565	77,221	170,942

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 11. Production of Crude Oil (including Lease Condensate) by PAD District and State, for the Most Currently Available Month,[1] January 1984 (Thousand Barrels) —Continued

PAD District and State	Production	
	Total	Daily Average
PAD District I		
Florida	1,317	42
New York	E 71	E 2
Pennsylvania	E 363	E 12
Virginia	E 3	E 0
West Virginia	283	9
Adjustment [2]	266	9
Total PAD District I	E 2,303	E 74
PAD District II		
Illinois	2,400	77
Indiana	276	9
Kansas	6,029	194
Kentucky	597	19
Michigan	2,520	81
Missouri	E 16	E 1
Nebraska	529	17
North Dakota	4,321	139
Ohio	E 1,237	E 40
Oklahoma	13,872	447
South Dakota	104	3
Tennessee	74	2
Adjustment [2]	429	14
Total PAD District II	E 32,404	E 1,045
PAD District III		
Alabama	1,624	52
Arkansas	E 1,559	E 50
Louisiana		
Gulf Coast	40,189	1,296
Rest of State	2,782	90
Total Louisiana	42,971	1,386
Mississippi	2,764	89
New Mexico		
Northwestern	575	19
Southeastern	5,759	186
Total New Mexico	6,334	204
Texas		
TRRC District 01	2,149	69
TRRC District 02	3,328	107
TRRC District 03	10,681	345
TRRC District 04	2,388	77
TRRC District 05	729	24
TRRC District 06, excluding East Texas	3,568	115
TRRC District 07B	3,008	97
TRRC District 07C	2,994	97
TRRC District 08	21,343	688
TRRC District 08A	18,673	602
TRRC District 09	3,327	107
TRRC District 10	1,965	63
East Texas	4,209	136
Total Texas	78,362	2,528
Adjustment [2]	-4,769	-154
Total PAD District III	E 128,845	E 4,156
PAD District IV		
Colorado	E 2,343	E 76
Montana	E 2,351	E 76
Utah	E 2,362	E 76
Wyoming	E 9,269	E 299
Adjustment [2]	40	1
Total PAD District IV	E 16,365	E 528
PAD District V		
Alaska		
South Alaska	1,964	63
North Slope	52,333	1,688
Adjustment for Alaska[2]	-335	-11
Total Alaska	53,962	1,741
Arizona	20	1
California		
Central Coastal	6,296	203
East Central	21,300	687
North	15	(s)
South	6,858	221
Total California	34,469	1,112
Nevada	106	3
Adjustment for Arizona, California, and Nevada[2]	-55	-2
Total PAD District V	88,502	2,855
United States Total	E 268,419	E 8,659

See footnotes at end of table.

---

[1] Includes the following offshore production (thousand barrels):
Alaska: State - 1,733;
California: Federal - 2,575, State - 3,129;
Louisiana: Federal - 27,717, State - 2,078;
Texas: Federal - E1,831, State- 139;
U.S. Total - 39,202.

[2] These adjustments are used to reconcile the national and PADD level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PADD level figures published in a previous issue. Final data at the State, PAD District and national levels will be published without adjustments in the Petroleum Supply Annual.

(s) = Less than 500 barrels.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.
E = Estimated.
– Data not available.

Table 12. Natural Gas Processing Plant Production of Petroleum Products by PAD District,[1] March 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Natural Gas Liquids	360	579	939	3	1,794	501	6,681	8,979	20,286	2,875	7,358	671	4,186	35,376	2,742	946	48,982
Pentanes Plus	32	72	104	1	237	120	926	1,284	3,442	245	1,290	187	697	5,861	880	378	8,507
Liquefied Petroleum Gases	328	507	835	2	1,557	381	5,755	7,695	16,844	2,630	6,068	484	3,489	29,515	1,862	568	40,475
Ethane	94	156	250	0	611	5	2,354	2,970	6,977	1,118	2,757	68	1,094	12,014	252	2	15,488
Propane	142	239	381	1	588	221	2,225	3,035	6,297	1,103	2,030	212	1,452	11,094	1,025	347	15,882
Normal Butane	72	81	153	1	196	131	820	1,148	2,524	227	694	132	639	4,216	473	159	6,149
Isobutane	20	31	51	0	162	24	356	542	1,046	182	587	72	304	2,191	112	60	2,956
Finished Petroleum Products	108	0	108	0	2	0	22	24	36	45	0	12	6	99	9	0	240
Finished Motor Gasoline	108	0	108	0	0	0	0	0	7	0	0	0	0	7	4	0	119
Finished Leaded Motor Gasoline	66	0	66	0	0	0	0	0	7	0	0	0	0	7	4	0	77
Finished Unleaded Motor Gasoline	42	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	42
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1
Distillate Fuel Oil	0	0	0	0	0	0	0	0	2	39	0	0	0	41	0	0	41
Special Naphthas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	2	0	22	24	26	6	0	12	6	50	5	0	79
Total Production	468	579	1,047	3	1,796	501	6,703	9,003	20,322	2,920	7,358	683	4,192	35,475	2,751	946	49,222

[1] Production represents quantity of natural gas processing plant output less input to fractionating facilities.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 13. Refinery Input of Crude Oil and Petroleum Products by PAD District, March 1984
(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil (including lease condensate)	29,516	2,545	32,061	1,725	57,494	8,628	19,473	87,320	15,768	87,241	61,112	5,613	2,296	172,030	12,991	65,610	370,012
Pentanes Plus	41	0	41	0	682	163	926	1,771	1,089	2,467	648	120	69	4,393	149	272	6,626
Liquefied Petroleum Gases	117	48	165	153	2,048	411	678	3,290	468	1,615	2,047	137	73	4,340	347	816	8,958
Ethane	0	0	0	0	3	0	0	3	0	0	75	0	0	75	0	0	78
Propane	0	0	0	0	82	0	0	82	0	1	38	0	0	39	5	0	126
Normal Butane	0	48	48	70	1,255	297	226	1,848	150	1,064	1,009	38	44	2,305	285	602	5,088
Isobutane	117	0	117	83	708	114	452	1,357	318	550	925	99	29	1,921	57	214	3,666
Other Liquids																	
Other Hydrocarbons and Alcohol	9	0	9	0	206	0	0	206	2	480	540	0	3	1,025	10	343	1,593
Unfinished Oil (net)	2,271	-17	2,254	-9	-1,486	-55	-341	-1,891	16	100	2,314	65	67	2,562	-643	935	3,217
Motor Gasoline Blending Components (net)	288	-15	273	0	1,051	-69	-207	775	104	1,390	1,462	15	28	2,999	-279	1,245	5,013
Aviation Gasoline Blending Components (net)	-23	0	-23	0	-45	0	2	-43	0	0	58	0	0	58	0	-1	-9
Total Input to Refineries	32,219	2,561	34,780	1,869	59,950	9,078	20,531	91,428	17,447	93,293	68,181	5,950	2,536	187,407	12,575	69,220	395,410
Crude Oil Distillation																	
Gross Input (daily average)	965	82	1,047	56	1,870	292	639	2,856	515	2,881	1,981	182	75	5,635	417	2,133	12,088
Operable Capacity (daily average)	1,404	174	1,578	66	2,329	304	787	3,485	604	3,842	2,539	294	109	7,387	557	3,106	16,113
Operating Ratio (percent)[1]	68.7	47.1	66.3	84.3	80.3	96.1	81.2	82.0	85.4	75.0	78.1	61.9	68.6	76.3	74.8	68.7	75.0
Crude Oil Qualities																	
Sulfur Content, Weighted Average (percent)	.92	.39	.88	.41	.85	1.74	.61	.87	.61	1.01	.89	1.52	.73	.94	.92	1.03	.93
API Gravity, Weighted Average	30.67	40.63	31.44	37.41	36.50	30.27	38.13	36.27	37.83	35.33	33.36	32.20	39.09	34.80	35.18	25.35	33.19
Operable Capacity (daily average)	1,404	174	1,578	66	2,329	304	787	3,485	604	3,842	2,539	294	109	7,387	557	3,106	16,113
Operating	1,276	104	1,379	66	2,193	301	740	3,299	579	3,432	2,362	235	107	6,714	480	2,855	14,728
Idle	128	71	199	0	136	3	47	186	25	410	176	59	2	673	77	251	1,385

[1] Represents gross input divided by operable capacity.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 14. Refinery Production of Petroleum Products by PAD District, March 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	1,337	29	1,366	40	1,854	248	397	2,539	197	2,891	3,255	74	93	6,510	150	1,192	11,757
For Petrochemical Feedstock Use	492	0	492	0	244	1	49	294	49	1,349	1,688	2	0	3,088	4	224	4,102
For Other Uses	845	29	874	40	1,610	247	348	2,245	148	1,542	1,567	72	93	3,422	146	968	7,655
Ethane	7	0	7	0	0	6	0	6	0	797	15	0	2	814	0	0	827
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	310	1	0	0	311	0	0	311
For Other Uses	7	0	7	0	0	6	0	6	0	487	14	0	2	503	0	0	516
Propane	1,138	29	1,167	40	1,771	240	434	2,485	199	2,213	1,363	61	62	3,898	173	900	8,623
For Petrochemical Feedstock Use	417	0	417	0	222	0	49	271	49	990	174	0	0	1,213	0	152	2,053
For Other Uses	721	29	750	40	1,549	240	385	2,214	150	1,223	1,189	61	62	2,685	173	748	6,570
Normal Butane	192	0	192	0	61	2	-37	26	-2	-70	1,877	13	29	1,847	-27	296	2,334
For Petrochemical Feedstock Use	75	0	75	0	0	1	0	1	0	98	1,513	2	0	1,613	0	76	1,765
For Other Uses	117	0	117	0	61	1	-37	25	-2	-168	364	11	29	234	-27	220	569
Isobutane for Petro. Feed. Use	0	0	0	0	22	0	0	22	0	-49	0	0	0	-49	4	-4	-27
Finished Motor Gasoline	16,522	966	17,488	1,146	35,764	5,001	11,857	53,768	9,057	43,198	33,771	1,988	1,103	89,117	6,329	30,819	197,521
Finished Leaded Motor Gasoline	5,043	429	5,472	489	14,595	2,374	6,464	23,922	4,385	16,839	13,562	802	592	36,180	3,795	12,415	81,784
Finished Unleaded Motor Gasoline	11,479	537	12,016	657	21,169	2,627	5,393	29,846	4,672	26,359	20,209	1,186	511	52,937	2,534	18,404	115,737
Finished Aviation Gasoline	0	0	0	0	45	0	16	61	24	168	113	0	0	305	18	142	526
Naphtha-Type Jet Fuel	546	30	576	31	452	95	309	887	904	1,008	706	130	508	3,256	514	1,346	6,579
Kerosene-Type Jet Fuel	614	0	614	26	3,169	432	738	4,365	909	6,440	7,594	6	61	15,010	722	6,960	27,671
Kerosene	-7	66	59	104	489	29	-29	593	54	671	797	46	5	1,573	17	222	2,464
Distillate Fuel Oil	7,424	700	8,124	363	10,742	2,297	4,926	18,328	3,798	16,201	12,706	1,660	651	35,016	3,560	11,796	76,824
Residual Fuel Oil	3,181	146	3,327	72	1,768	268	418	2,526	923	6,378	2,942	303	12	10,558	421	10,665	27,497
Naphtha < 400 Deg. For Petro. Feed. Use	395	0	395	0	727	0	67	794	175	2,628	261	45	0	3,109	0	177	4,475
Other Oils > 400 Deg. For Petro. Feed. Use	5	0	5	0	129	0	0	129	252	5,473	2,987	0	0	8,712	0	555	9,401
Special Naphthas	18	14	32	0	281	0	181	462	23	814	42	120	0	999	2	164	1,659
Lubricants	298	322	620	0	496	0	369	865	0	1,967	755	327	0	3,049	12	378	4,924
Waxes	0	69	69	0	20	0	23	43	8	165	55	56	0	284	10	81	487
Petroleum Coke	1,070	19	1,089	29	2,030	587	586	3,232	276	3,075	2,539	107	11	6,008	311	3,343	13,983
Marketable	354	0	354	0	1,009	464	395	1,868	54	1,514	1,779	90	0	3,437	152	2,588	8,399
Catalyst	716	19	735	29	1,021	123	191	1,364	222	1,561	760	17	11	2,571	159	755	5,584
Asphalt and Road Oil	1,248	43	1,291	72	1,686	217	514	2,489	542	571	16	944	93	2,166	533	1,355	7,834
Still Gas	1,364	92	1,456	60	2,399	348	807	3,614	445	4,364	2,787	195	47	7,838	396	3,607	16,911
For Petrochemical Feedstock Use	83	0	83	0	3	0	0	3	5	457	125	0	0	587	25	171	869
For Other Uses	1,281	92	1,373	60	2,396	348	807	3,611	440	3,907	2,662	195	47	7,251	371	3,436	16,042
Miscellaneous Products	84	41	125	3	169	39	22	233	65	953	237	33	0	1,288	39	145	1,830
Fuel Use	4	24	28	0	1	0	6	7	0	-26	124	0	0	98	3	15	151
Non-Fuel Use	80	17	97	3	168	39	16	226	65	979	113	33	0	1,190	36	130	1,679
Total Production	34,099	2,537	36,636	1,946	62,220	9,561	21,201	94,928	17,652	96,965	71,563	6,034	2,584	194,798	13,034	72,947	412,343
Processing Gain(-) or Loss(+)[1]	-1,880	24	-1,856	-77	-2,270	-483	-670	-3,500	-205	-3,672	-3,382	-84	-48	-7,391	-459	-3,727	-16,933

[1] Represents the arithmetic difference between input and output.

Note: See Explanatory Note 2.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 15. Percent Refinery Yield of Petroleum Products by PAD District,[1] March 1984

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Finished Motor Gasoline[2]	50.5	36.9	49.5	57.9	56.7	52.4	54.7	55.9	46.8	42.6	45.8	30.2	39.4	43.7	49.4	42.3	47.0
Finished Aviation Gasoline[3]	.1	.0	.1	.0	.2	.0	.1	.1	.2	.2	.1	.0	.0	.1	.1	.2	.1
Liquefied Refinery Gases	4.2	1.1	4.0	2.3	3.3	2.9	2.1	3.0	1.2	3.3	5.1	1.3	3.9	3.7	1.2	1.8	3.2
Naphtha-Type Jet Fuel	1.7	1.2	1.7	1.8	.8	1.1	1.6	1.0	5.7	1.2	1.1	2.3	21.5	1.9	4.2	2.0	1.8
Kerosene-Type Jet Fuel	1.9	0	1.8	1.5	5.7	5.0	3.9	5.1	5.8	7.4	12.0	.1	2.6	8.6	5.8	10.5	7.4
Kerosene	.0	2.6	.2	6.1	.9	.3	–.2	.7	.3	.8	1.3	.8	.2	.9	.1	.3	.7
Distillate Fuel Oil	23.4	27.7	23.7	21.2	19.2	26.8	25.7	21.5	24.1	18.5	20.0	29.2	27.5	20.1	28.8	17.7	20.6
Residual Fuel Oil	10.0	5.8	9.7	4.2	3.2	3.1	2.2	3.0	5.8	7.3	4.6	5.3	.5	6.0	3.4	16.0	7.4
Naphtha < 400 Deg. F. Petro. Feed. Use	1.2	0	1.2	0	1.3	0	.4	.9	1.1	3.0	.4	.8	0	1.8	0	.3	1.2
Other Oils > 400 Deg. F. Petro. Feed. Use	.0	0	.0	0	.2	0	0	.2	1.6	6.3	4.7	0	0	5.0	.0	.8	2.5
Special Naphthas	.1	.6	.1	0	.5	0	.9	.5	.1	.9	.1	2.1	0	.6	.0	.2	.4
Lubricants	.9	12.7	1.8	0	.9	0	1.9	1.0	.0	2.3	1.2	5.8	0	1.7	.1	.6	1.3
Waxes	.0	2.7	.2	0	.0	0	.1	.1	.1	.2	.1	1.0	0	.2	.1	.1	.1
Petroleum Coke	3.4	.8	3.2	1.7	3.6	6.8	3.1	3.8	1.7	3.5	4.0	1.9	.5	3.4	2.5	5.0	3.7
Asphalt and Road Oil	3.9	1.7	3.8	4.2	3.0	2.5	2.7	2.9	3.4	.7	.0	16.6	3.9	1.2	4.3	2.0	2.1
Still Gas	4.3	3.6	4.2	3.5	4.3	4.1	4.2	4.2	2.8	5.0	4.4	3.4	2.0	4.5	3.2	5.4	4.5
Miscellaneous Products	.3	1.6	.4	.2	.3	.5	.1	.3	.4	1.1	.4	.6	0	.7	.3	.2	.5
Processing Gain(-) or Loss(+)[4]	–5.9	.9	–5.4	–4.5	–4.1	–5.6	–3.5	–4.1	–1.3	–4.2	–5.3	–1.5	–2.0	–4.2	–3.7	–5.6	–4.5

---

[1] Based on crude oil input and net reruns of unfinished oils.

[2] Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

[3] Based on finished aviation gasoline output plus net output of aviation gasoline blending components.

[4] Represents the difference between Input and Production.

Note: Total may not equal sum of components due to independent rounding.

Note: See Explanatory 2.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 16. Imports of Crude Oil and Petroleum Products by PAD District, March 1984 (Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) [1] [2]	27,304	17,162	57,069	1,002	4,558	107,094
Natural Gas Liquids	1,087	5,529	643	499	1,018	8,777
Pentanes Plus	653	0	24	124	510	1,310
Liquefied Petroleum Gases	435	5,529	619	376	508	7,467
Ethane	0	3,565	0	0	0	3,565
Propane	247	1,184	359	150	83	2,023
Normal Butane	113	469	166	135	255	1,137
Isobutane	75	312	95	90	170	742
Other Liquids [1]	2,546	703	3,172	0	1,320	7,740
Unfinished Oils [1]	1,100	646	2,769	0	455	4,969
Motor Gasoline Blending Components	1,446	57	403	0	865	2,771
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	31,484	839	5,409	164	1,326	39,222
Finished Motor Gasoline	8,935	207	869	48	576	10,635
Finished Leaded Motor Gasoline	5,183	112	594	43	167	6,098
Finished Unleaded Motor Gasoline	3,753	95	275	5	410	4,537
Finished Aviation Gasoline	1	0	0	1	0	2
Naphtha-Type Jet Fuel	347	0	0	0	0	347
Kerosene-Type Jet Fuel	1,024	0	0	0	28	1,051
Bonded Aircraft Fuel	0	0	0	0	0	0
Other	1,024	0	0	0	28	1,051
Kerosene	43	0	0	0	0	43
Distillate Fuel Oil	3,270	61	51	94	88	3,566
Bonded Ships Bunkers	0	0	0	0	0	0
Other	3,270	61	51	94	88	3,566
Residual Fuel Oil	16,766	389	2,156	20	292	19,623
Bonded Ships Bunkers	0	0	0	0	0	0
Other	16,766	389	2,156	20	292	19,623
Naphtha < 400 Deg. for Petro. Feed. Use	238	26	997	0	0	1,261
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	276	45	1,286	(s)	184	1,792
Lubricants	232	13	30	(s)	146	422
Waxes	11	5	6	0	4	25
Asphalt and Road Oil	30	0	0	0	0	30
Miscellaneous Products	309	94	13	(s)	8	425
Total Imports	62,421	24,233	66,293	1,666	8,221	162,834

---

[1] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[2] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, March 1984
(Thousand Barrels)

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
							All PAD Districts							
Arab OPEC														
Algeria	5,675	0	0	0	151	0	0	50	2,388	495	0	3,085	8,760	283
Kuwait	0	0	0	0	0	0	0	0	496	0	0	496	496	16
Saudi Arabia	8,996	0	0	0	0	0	0	0	514	0	0	514	9,510	307
United Arab Emirates	2,913	0	262	0	0	0	0	0	0	0	298	561	3,474	112
Subtotal Arab OPEC	17,584	0	262	0	151	0	0	50	3,399	495	298	4,656	22,240	717
Other OPEC														
Ecuador	1,686	0	0	0	0	0	0	0	118	0	0	118	1,804	58
Gabon	1,625	0	0	0	0	0	0	0	0	0	0	0	1,625	52
Indonesia	6,775	450	390	0	205	19	0	42	896	0	24	2,026	8,802	284
Iran	2,071	0	0	0	0	0	0	0	0	0	0	0	2,071	67
Nigeria	7,497	0	554	0	0	0	0	0	0	0	0	554	8,051	260
Venezuela	7,434	0	0	126	1,618	525	0	406	834	0	29	3,538	10,972	354
Subtotal Other OPEC	27,089	450	944	126	1,823	544	0	448	1,848	0	53	6,236	33,325	1,075
Other														
Angola	3,589	0	0	0	0	0	0	0	300	0	0	300	3,889	125
Australia	0	0	0	0	0	0	0	0	295	0	0	295	295	10
Bahamas	0	0	605	0	0	40	0	560	1,019	0	506	2,729	2,729	88
Bolivia	260	0	0	0	0	0	0	0	0	0	0	0	260	8
Brazil	0	0	0	0	1,122	0	0	0	704	42	23	1,891	1,891	61
Canada	12,064	6,616	451	57	791	0	6	830	1,117	184	392	10,444	22,508	726
Congo	1,461	0	0	0	0	0	0	0	200	0	0	200	1,661	54
France	0	0	0	0	0	0	0	0	0	0	1	1	1	(s)
Liberia	0	0	0	0	0	0	0	0	453	0	0	453	453	15
Malaysia	0	0	0	0	52	0	0	1	37	0	0	90	90	3
Mexico	20,382	174	467	884	(s)	0	0	3	6	0	10	1,545	21,926	707
Netherlands	495	0	0	0	1,372	0	0	393	0	0	99	1,864	2,359	76
Netherlands Antilles	0	0	639	0	1,292	0	0	0	3,277	0	41	5,249	5,249	169
Norway	3,922	0	0	0	0	0	0	0	0	0	0	0	3,922	127
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0
People's Republic of China	32	0	0	865	0	0	0	0	0	172	(s)	1,036	1,068	34
Peru	0	0	0	0	0	0	0	0	671	0	0	671	671	22
Puerto Rico	0	0	145	0	269	96	0	0	0	363	177	1,049	1,049	34
Romania	0	0	0	507	279	0	0	0	0	0	561	1,347	1,347	43
Spain	0	0	0	0	239	0	0	0	0	0	(s)	239	239	8
Trinidad and Tobago	2,874	0	0	0	0	0	0	0	0	0	0	0	2,874	93
Tunisia	2	0	0	0	0	0	0	0	0	0	0	0	2	(s)
United Kingdom	11,145	100	0	79	553	0	0	0	0	0	512	1,244	12,388	400
Virgin Islands	0	0	308	0	1,549	710	37	1,213	3,657	88	110	7,672	7,672	247
Zaire	1,168	0	0	0	0	0	0	0	0	0	0	0	1,168	38
Other Western Hemisphere	143	127	212	0	0	0	0	0	1,101	0	34	1,474	1,617	52
Other Eastern Hemisphere	4,885	0	936	253	1,144	8	0	68	1,539	449	657	5,053	9,939	321
Subtotal Other	62,422	7,017	3,763	2,644	8,661	854	43	3,067	14,376	1,296	3,124	44,846	107,268	3,460
Total Imports	107,094	7,467	4,969	2,771	10,635	1,399	43	3,566	19,623	1,792	3,475	55,740	162,834	5,253

See footnotes at end of table.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, March 1984 (Thousand Barrels) (continued)

Source	Crude Oil [1]	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products [2]	Total Products	Total Petroleum	Total (Daily Average)
	PAD District I													
Arab OPEC														
Algeria	1,690	0	0	0	151	0	0	0	2,388	0	0	2,540	4,230	136
Saudi Arabia	1,734	0	0	0	0	0	0	0	0	0	0	0	1,734	56
United Arab Emirates	0	0	0	0	0	0	0	0	0	0	298	298	298	10
Subtotal Arab OPEC	3,424	0	0	0	151	0	0	0	2,388	0	298	2,838	6,262	202
Other OPEC														
Ecuador	302	0	0	0	0	0	0	0	118	0	0	118	420	14
Gabon	688	0	0	0	0	0	0	0	0	0	0	0	688	22
Indonesia	3,048	0	0	0	0	0	0	0	491	0	0	491	3,540	114
Nigeria	1,878	0	0	0	0	0	0	0	0	0	0	0	1,878	61
Venezuela	2,377	0	0	0	1,343	525	0	406	823	0	29	3,125	5,502	177
Subtotal Other OPEC	8,293	0	0	0	1,343	525	0	406	1,433	0	29	3,735	12,027	388
Other														
Angola	1,781	0	0	0	0	0	0	0	300	0	0	300	2,081	67
Australia	0	0	0	0	0	0	0	0	295	0	0	295	295	10
Bahamas	0	0	0	0	0	40	0	560	1,019	0	0	1,618	1,618	52
Brazil	0	0	0	0	655	0	0	0	704	0	0	1,359	1,359	44
Canada	1,143	208	8	0	286	0	6	650	708	15	121	2,002	3,145	101
Congo	290	0	0	0	0	0	0	0	200	0	0	200	490	16
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Liberia	0	0	0	0	0	0	0	0	453	0	0	453	453	15
Mexico	1,797	0	0	608	0	0	0	0	0	0	0	608	2,405	78
Netherlands	0	0	0	0	1,372	0	0	393	0	0	(s)	1,765	1,765	57
Netherlands Antilles	0	0	639	0	1,292	0	0	0	3,277	0	0	5,208	5,208	168
Norway	2,763	0	0	0	0	0	0	0	0	0	0	0	2,763	89
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0
People's Republic of China	32	0	0	0	0	0	0	0	0	0	(s)	(s)	32	1
Peru	0	0	0	0	0	0	0	0	510	0	0	510	510	16
Puerto Rico	0	0	145	0	269	96	0	0	0	80	177	767	767	25
Romania	0	0	0	507	279	0	0	0	0	0	561	1,347	1,347	43
Spain	0	0	0	0	239	0	0	0	0	0	(s)	239	239	8
Trinidad and Tobago	461	0	0	0	0	0	0	0	0	0	0	0	461	15
Tunisia	2	0	0	0	0	0	0	0	0	0	0	0	2	(s)
United Kingdom	6,058	100	0	79	426	0	0	0	0	0	273	878	6,936	224
Virgin Islands	0	0	308	0	1,549	710	37	1,213	3,654	0	0	7,471	7,471	241
Zaire	715	0	0	0	0	0	0	0	0	0	0	0	715	23
Other Western Hemisphere	0	127	0	0	0	0	0	0	1,101	0	8	1,235	1,235	40
Other Eastern Hemisphere	545	0	0	253	1,075	0	0	50	724	181	6	2,289	2,834	91
Subtotal Other	15,587	435	1,100	1,446	7,442	846	43	2,865	12,946	276	1,147	28,546	44,132	1,424
Total Imports	27,304	435	1,100	1,446	8,935	1,371	43	3,270	16,766	276	1,474	35,116	62,421	2,014

See footnotes at end of table.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, March 1984 (Thousand Barrels) (continued)

Source	Crude Oil[1]	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products[2]	Total Products	Total Petroleum	Total (Daily Average)
							PAD District II							
Other OPEC														
Ecuador	325	0	0	0	0	0	0	0	0	0	0	0	325	10
Iran	1,040	0	0	0	0	0	0	0	0	0	0	0	1,040	34
Nigeria	0	0	203	0	0	0	0	0	0	0	0	203	203	7
Subtotal Other OPEC	1,364	0	203	0	0	0	0	0	0	0	0	203	1,568	51
Other														
Canada	9,190	5,529	442	57	207	0	0	61	389	45	137	6,867	16,057	518
Congo	450	0	0	0	0	0	0	0	0	0	0	0	450	15
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	4,229	0	0	0	0	0	0	0	0	0	0	0	4,229	136
Netherlands	495	0	0	0	0	0	0	0	0	0	0	0	495	16
Trinidad and Tobago	911	0	0	0	0	0	0	0	0	0	0	0	911	29
United Kingdom	523	0	0	0	0	0	0	0	0	0	(s)	(s)	523	17
Other Eastern Hemisphere	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Subtotal Other	15,797	5,529	442	57	207	0	0	61	389	45	138	6,868	22,665	731
Total Imports	17,162	5,529	646	57	207	0	0	61	389	45	138	7,072	24,233	782
							PAD District III							
Arab OPEC														
Algeria	3,985	0	0	0	0	0	0	50	0	495	0	546	4,530	146
Kuwait	0	0	0	0	0	0	0	0	496	0	0	496	496	16
Saudi Arabia	7,263	0	0	0	0	0	0	0	514	0	0	514	7,777	251
United Arab Emirates	2,913	0	262	0	0	0	0	0	0	0	0	262	3,175	102
Subtotal Arab OPEC	14,160	0	262	0	0	0	0	50	1,010	495	0	1,818	15,978	515
Other OPEC														
Ecuador	1,059	0	0	0	0	0	0	0	0	0	0	0	1,059	34
Gabon	938	0	0	0	0	0	0	0	0	0	0	0	938	30
Indonesia	712	450	0	0	0	0	0	0	385	0	24	859	1,572	51
Iran	1,032	0	0	0	0	0	0	0	0	0	0	0	1,032	33
Nigeria	5,619	0	351	0	0	0	0	0	0	0	0	351	5,969	193
Venezuela	5,057	0	0	126	275	0	0	0	11	0	0	413	5,470	176
Subtotal Other OPEC	14,417	450	351	126	275	0	0	0	396	0	24	1,622	16,039	517
Other														
Angola	1,808	0	0	0	0	0	0	0	0	0	0	0	1,808	58
Bahamas	0	0	605	0	0	0	0	0	0	0	506	1,110	1,110	36
Bolivia	260	0	0	0	0	0	0	0	0	0	0	0	260	8
Brazil	0	0	0	0	467	0	0	0	0	42	23	532	532	17
Canada	(s)	0	0	0	0	0	0	0	0	111	(s)	111	111	4
Congo	721	0	0	0	0	0	0	0	0	0	0	0	721	23
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	14,356	169	467	277	(s)	0	0	1	0	0	7	921	15,277	493
Netherlands	0	0	0	0	0	0	0	0	0	0	99	99	99	3
Netherlands Antilles	0	0	0	0	0	0	0	0	0	0	30	30	30	1

See footnotes at end of table.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, March 1984 (Thousand Barrels) (continued)

Source	Crude Oil [1]	LPG	Unfin-ished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts [2]	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
								PAD District III						
Other														
Norway	1,159	0	0	0	0	0	0	0	0	0	0	0	1,159	37
Peru	0	0	0	0	0	0	0	0	160	0	0	160	160	5
Puerto Rico	0	0	0	0	0	0	0	0	0	282	0	282	282	9
Romania	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	1,503	0	0	0	0	0	0	0	0	0	0	0	1,503	48
United Kingdom	4,563	0	0	0	127	0	0	0	0	0	239	366	4,929	159
Virgin Islands	0	0	0	0	0	0	0	0	3	88	110	201	201	6
Zaire	453	0	0	0	0	0	0	0	0	0	0	0	453	15
Other Western Hemisphere	143	0	212	0	0	0	0	0	0	0	26	239	382	12
Other Eastern Hemisphere	3,526	0	871	0	0	0	0	0	586	268	5	1,730	5,256	170
Subtotal Other	28,493	169	2,156	277	594	0	0	1	749	791	1,046	5,783	34,275	1,106
Total Imports	57,069	619	2,769	403	869	0	0	51	2,156	1,286	1,070	9,223	66,293	2,138
								PAD District IV						
Other														
Canada	1,002	376	0	0	48	0	0	94	20	(s)	126	664	1,666	54
Other Eastern Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Other	1,002	376	0	0	48	0	0	94	20	(s)	126	664	1,666	54
Total Imports	1,002	376	0	0	48	0	0	94	20	(s)	126	664	1,666	54
								PAD District V						
Arab OPEC														
Algeria	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Arab OPEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other OPEC														
Indonesia	3,015	0	390	0	205	19	0	42	19	0	(s)	676	3,691	119
Venezuela	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Other OPEC	3,015	0	390	0	205	19	0	42	19	0	(s)	676	3,691	119
Other														
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	729	503	1	0	251	0	0	25	0	12	8	800	1,529	49
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Malaysia	0	0	0	0	52	0	0	1	37	0	0	90	90	3
Mexico	0	5	0	0	0	0	0	2	6	0	3	16	16	1
Netherlands Antilles	0	0	0	0	0	0	0	0	0	0	11	11	11	(s)
People's Republic of China	0	0	0	865	0	0	0	0	0	172	0	1,036	1,036	33
United Kingdom	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	814	0	64	0	69	8	0	18	229	0	645	1,034	1,848	60
Subtotal Other	1,543	508	65	865	371	8	0	46	273	184	668	2,988	4,530	146
Total Imports	4,558	508	455	865	576	28	0	88	292	184	668	3,664	8,221	265

[1] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[2] Includes aviation gasoline, waxes, asphalt, lubricants, pentanes plus, napthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 18. Exports of Crude Oil and Petroleum Products by PAD District, March 1984 (Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) [1]	0	766	(s)	0	6,538	7,304
Natural Gas Liquids	42	1,121	999	0	122	2,283
Pentanes Plus	0	168	0	0	0	168
Liquefied Petroleum Gases	42	953	999	0	122	2,115
Ethane	0	336	0	0	0	336
Propane	16	281	881	0	49	1,228
Normal Butane	25	168	118	0	72	384
Isobutane	0	168	0	0	0	168
Finished Motor Gasoline	25	0	190	0	71	285
Naphtha-Type Jet Fuel	(s)	0	0	0	0	(s)
Kerosene-Type Jet Fuel	(s)	0	0	0	21	21
Kerosene	1	0	0	0	(s)	1
Distillate Fuel Oil	405	51	1,012	(s)	567	2,036
Residual Fuel Oil	181	0	4,286	0	1,853	6,320
Naphtha < 400 Deg. for Petrochem. Feedstock	48	7	242	1	6	304
Other Oils > 400 Deg. for Petrochem. Feedstock	(s)	56	224	0	90	370
Special Naphthas	3	20	42	0	1	66
Lubricants	198	23	458	1	33	714
Waxes	5	(s)	41	0	3	50
Petroleum Coke	202	156	4,623	1	1,250	6,232
Asphalt	1	1	10	0	6	19
Miscellaneous Products	18	2	17	0	3	39
Total Product Exports	1,130	1,269	12,144	3	4,027	18,572
Total Exports	1,130	2,202	12,144	3	10,565	26,044

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 19. Exports of Crude Oil and Petroleum Products by Destination, March 1984 (Thousand Barrels)

Destination	Crude Oil[1]	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other[2]	Total	Total (Daily Average)
Argentina	0	0	0	0	0	0	(s)	22	(s)	(s)	0	(s)	22	1
Australia	0	(s)	0	0	0	0	4	8	(s)	154	(s)	6	172	6
Bahamas	0	7	1	(s)	(s)	165	0	1	(s)	0	0	(s)	175	6
Bahrain	0	0	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
Belgium & Luxembourg	0	1	(s)	0	0	0	0	2	(s)	320	(s)	1	324	10
Brazil	0	0	0	0	0	0	0	(s)	0	25	0	2	26	1
Cameroon	0	0	0	0	0	0	0	(s)	0	30	0	0	30	1
Canada	766	955	23	0	275	230	22	51	2	537	7	252	3,119	101
Chile	0	(s)	0	0	0	0	0	20	(s)	(s)	0	1	22	1
China (Taiwan)	0	0	0	0	0	515	(s)	10	(s)	1	(s)	1	527	17
Colombia	0	1	0	0	0	0	2	5	11	(s)	0	(s)	19	1
Costa Rica	0	0	0	0	0	0	(s)	3	(s)	0	10	1	15	(s)
Denmark	0	0	0	0	0	0	0	(s)	(s)	0	0	(s)	(s)	(s)
Dominican Republic	0	43	0	0	0	0	0	1	0	32	0	(s)	76	2
Ecuador	0	38	0	0	179	0	3	1	(s)	0	(s)	2	223	7
Egypt	0	1	0	0	0	0	0	2	(s)	0	0	(s)	3	(s)
El Salvador	0	0	0	0	0	0	0	(s)	(s)	0	0	(s)	(s)	(s)
Finland	0	0	0	0	0	0	0	3	(s)	0	0	(s)	3	(s)
France	0	0	0	0	0	285	(s)	1	2	219	0	(s)	508	16
French Pacific Isl	0	0	0	0	0	0	0	(s)	0	0	(s)	0	(s)	(s)
Ghana	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Greece	0	(s)	0	0	(s)	0	(s)	(s)	0	77	0	0	78	3
Guatemala	0	58	0	0	0	0	(s)	3	1	0	0	1	63	2
Honduras	0	(s)	(s)	0	0	0	0	8	(s)	(s)	0	(s)	9	(s)
Hong Kong	0	(s)	0	0	0	0	(s)	1	(s)	0	(s)	(s)	2	(s)
India	0	0	0	0	0	0	0	13	(s)	0	(s)	10	22	1
Indonesia	0	0	0	0	(s)	0	(s)	2	(s)	0	0	(s)	2	(s)
Iran	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Israel	0	(s)	0	0	0	0	(s)	(s)	(s)	0	0	1	1	(s)
Italy	0	51	0	0	0	2,293	0	1	2	1,556	(s)	67	3,970	128
Ivory Coast	0	0	0	0	124	88	0	(s)	0	0	(s)	(s)	211	7
Jamaica	0	29	25	0	0	0	(s)	33	(s)	0	0	3	89	3
Japan	0	0	0	0	345	366	9	86	2	829	(s)	56	1,694	55
Jordan	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Korea, Republic of	0	(s)	0	0	253	336	(s)	5	(s)	(s)	0	92	687	22
Kuwait	0	1	0	0	0	0	0	1	0	0	0	(s)	2	(s)
Lebanon	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Liberia	0	0	0	0	0	110	0	1	0	0	0	(s)	112	4
Malaysia	0	0	0	0	0	0	0	(s)	(s)	0	0	(s)	1	(s)
Mexico	0	739	5	21	0	0	7	93	11	34	0	5	917	30
Netherlands	0	68	0	0	0	0	7	1	(s)	595	(s)	162	833	27
Netherlands Antilles	0	(s)	51	0	0	179	0	(s)	0	0	0	(s)	230	7
New Zealand	0	0	66	0	0	0	0	(s)	(s)	51	(s)	2	120	4
Nicaragua	0	(s)	0	0	0	0	0	18	0	0	0	1	19	1
Nigeria	0	0	0	0	0	0	(s)	1	0	0	0	(s)	1	(s)
Norway	0	0	0	0	0	0	0	(s)	0	334	0	(s)	335	11
Pacific Trust Terr.	0	(s)	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
Panama	0	0	113	0	510	0	3	19	(s)	(s)	0	1	645	21
Peru	0	0	0	0	0	0	(s)	23	(s)	0	0	(s)	23	1
Philippines	0	(s)	0	0	0	0	(s)	(s)	(s)	0	0	1	1	(s)
Puerto Rico	1,031	8	1	(s)	0	188	1	20	2	0	(s)	12	1,263	41
Rep. of South Africa	0	1	0	0	0	0	0	19	4	58	(s)	1	84	3
Saudi Arabia	0	4	0	0	(s)	0	(s)	45	0	0	0	4	54	2

See footnotes at end of table.

Table 19. Exports of Crude Oil and Petroleum Products by Destination, March 1984
(Thousand Barrels)

(continued)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other2	Total	Total (Daily Average)
Singapore	0	5	0	0	(s)	325	2	2	(s)	0	(s)	2	335	11
Spain	0	0	0	0	349	853	0	6	(s)	1,017	0	67	2,291	74
Surinam	0	0	0	0	0	0	0	2	0	0	0	(s)	2	(s)
Sweden	0	0	0	0	0	0	0	3	(s)	1	0	(s)	4	(s)
Switzerland	0	(s)	0	0	0	0	0	2	(s)	0	0	(s)	2	(s)
Thailand	0	0	0	0	0	0	0	12	0	0	0	1	13	(s)
Trinidad and Tobago	0	0	0	0	0	0	5	1	0	0	0	(s)	6	(s)
Turkey	0	0	0	0	0	0	(s)	(s)	0	0	0	64	64	2
United Arab Emirates	0	0	0	0	0	0	0	13	0	33	0	5	51	2
United Kingdom	0	(s)	0	0	1	0	(s)	7	(s)	27	(s)	4	40	1
U.S.S.R.	0	0	0	0	0	0	0	102	0	79	0	0	181	6
Uruguay	0	(s)	0	0	0	0	0	1	(s)	0	0	(s)	1	(s)
Venezuela	(s)	88	0	0	0	0	1	(s)	1	17	0	2	109	4
Virgin Islands	5,029	(s)	0	0	0	310	0	(s)	0	0	0	(s)	5,340	172
West Germany	0	(s)	0	0	0	0	(s)	28	9	48	0	10	95	3
Yugoslavia	0	0	0	0	0	0	0	(s)	(s)	73	0	0	73	2
Other	478	13	(s)	0	(s)	76	(s)	9	1	83	(s)	40	700	23
Total	7,304	2,115	285	21	2,036	6,320	66	714	50	6,232	19	883	26,044	840

[1] Exports of crude oil are orohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

[2] Includes pentanes plus, kerosene, naphtha less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, March 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil (incl. lease condensate)																	
Refinery	—	—	13,045	—	—	—	—	13,976	—	—	—	—	—	46,234	1,956	25,417	100,628
Tank Farms and Pipelines	—	—	1,392	—	—	—	—	58,752	—	—	—	—	—	88,421	10,759	27,808	187,132
Leases	—	—	58	—	—	—	—	1,594	—	—	—	—	—	17,070	1,331	1,687	21,740
Strategic Petroleum Reserve[1]	—	—	0	—	—	—	—	0	—	—	—	—	—	391,794	0	0	391,794
Alaskan In-Transit	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	26,241	26,241
Total	—	—	14,495	—	—	—	—	74,322	—	—	—	—	—	543,519	14,046	81,153	727,535
Total Stocks, All Oils (excl. Crude Oil)																	
Refinery	36,796	2,615	39,411	962	42,703	8,791	15,467	67,923	10,812	73,254	44,359	5,412	1,509	135,346	14,434	64,427	321,541
Bulk Terminal	—	—	102,993	—	—	—	—	80,122	—	—	—	—	—	72,253	3,213	20,203	278,784
Pipeline	—	—	24,722	—	—	—	—	35,462	—	—	—	—	—	39,222	2,754	5,055	107,215
Natural Gas Processing Plant	113	38	151	0	186	84	1,481	1,751	1,683	4,019	697	81	229	6,709	244	104	8,959
Total	—	—	167,277	—	—	—	—	185,258	—	—	—	—	—	253,530	20,645	89,789	716,499
Pentanes Plus																	
Refinery	15	0	15	0	63	77	109	249	63	144	156	36	12	411	16	9	700
Bulk Terminal	—	—	24	—	—	—	—	2,279	—	—	—	—	—	1,513	0	0	3,816
Pipeline	—	—	0	—	—	—	—	419	—	—	—	—	—	1,238	107	5	1,769
Natural Gas Processing Plant	2	7	9	0	40	30	281	351	493	487	174	23	23	1,200	77	21	1,658
Total	—	—	48	—	—	—	—	3,298	—	—	—	—	—	4,362	200	35	7,943
Liquefied Petroleum Gases																	
Refinery	459	13	472	108	1,489	138	627	2,362	186	602	1,836	19	21	2,664	378	692	6,568
Bulk Terminal	—	—	845	—	—	—	—	16,035	—	—	—	—	—	43,450	64	581	60,975
Pipeline	—	—	1,283	—	—	—	—	6,442	—	—	—	—	—	5,769	430	0	13,924
Natural Gas Processing Plant	93	31	124	0	144	54	1,200	1,398	1,029	3,531	523	57	206	5,346	158	83	7,109
Total	—	—	2,724	—	—	—	—	26,237	—	—	—	—	—	57,229	1,030	1,356	88,576
Ethane																	
Refinery	9	0	9	0	3	21	0	24	0	9	0	0	0	9	0	0	42
Bulk Terminal	—	—	0	—	—	—	—	2,917	—	—	—	—	—	12,678	0	0	15,595
Pipeline	—	—	0	—	—	—	—	1,789	—	—	—	—	—	1,868	134	0	3,791
Natural Gas Processing Plant	0	0	0	0	24	0	334	358	95	1,506	2	0	8	1,611	7	0	1,976
Total	—	—	9	—	—	—	—	5,088	—	—	—	—	—	16,166	141	0	21,404

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, March 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Propane for Petrochemical Feedstock Use																	
Refinery	44	0	44	0	118	0	0	118	2	8	49	0	0	59	0	0	221
Total	—	—	44	—	—	—	—	118	—	—	—	—	—	59	0	0	221
Propane For Other Uses																	
Refinery	367	5	372	2	756	33	137	928	70	64	901	4	5	1,044	136	242	2,722
Bulk Terminal	—	—	753	—	—	—	—	10,104	—	—	—	—	—	16,626	64	148	27,695
Pipeline	—	—	1,147	—	—	—	—	3,239	—	—	—	—	—	2,661	175	0	7,222
Natural Gas Processing Plant	75	31	106	0	73	33	547	653	503	1,000	385	27	130	2,045	110	67	2,981
Total	—	—	2,378	—	—	—	—	14,924	—	—	—	—	—	22,376	485	457	40,620
Normal Butane For Petro. Feed Use																	
Refinery	0	0	0	0	0	27	0	27	0	7	0	0	0	7	6	2	42
Total	—	—	0	—	—	—	—	27	—	—	—	—	—	7	6	2	42
Normal Butane For Other Uses																	
Refinery	38	8	46	57	380	34	315	786	74	380	425	4	10	893	199	388	2,312
Bulk Terminal	—	—	73	—	—	—	—	1,735	—	—	—	—	—	8,986	0	352	11,146
Pipeline	—	—	119	—	—	—	—	855	—	—	—	—	—	876	79	0	1,929
Natural Gas Processing Plant	17	0	17	0	24	16	223	263	353	672	84	19	53	1,181	36	11	1,508
Total	—	—	255	—	—	—	—	3,639	—	—	—	—	—	11,936	314	751	16,895
Isobutane																	
Refinery	1	0	1	49	232	23	175	479	40	134	461	11	6	652	37	60	1,229
Bulk Terminal	—	—	19	—	—	—	—	1,279	—	—	—	—	—	5,160	0	81	6,539
Pipeline	—	—	17	—	—	—	—	559	—	—	—	—	—	364	42	0	982
Natural Gas Processing Plant	1	0	1	0	23	5	96	124	78	353	52	11	15	509	5	5	644
Total	—	—	38	—	—	—	—	2,441	—	—	—	—	—	6,685	84	146	9,394
Other Hydrocarbons and Alcohol																	
Refinery	31	0	31	0	113	0	0	113	1	88	10	0	0	99	0	4	247
Total	—	—	31	—	—	—	—	113	—	—	—	—	—	99	0	4	247
Unfinished Oils																	
Refinery																	
Naphthas and Lighter	4,150	202	4,352	53	3,298	170	1,466	4,987	834	8,652	4,804	181	60	14,531	536	5,013	29,419
Kerosene and Lighter Gas Oils	1,286	26	1,312	0	2,262	3	626	2,891	492	7,485	2,259	27	5	10,268	294	3,654	18,419
Heavy Gas Oils	5,476	293	5,769	94	4,764	368	1,859	7,085	1,329	10,720	6,719	134	145	19,047	976	12,387	45,264
Residuum	2,632	241	2,873	2	2,906	16	1,116	4,040	363	4,243	4,502	49	99	9,256	723	5,674	22,566
Total	13,544	762	14,306	149	13,230	557	5,067	19,003	3,018	31,100	18,284	391	309	53,102	2,529	26,728	115,668

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, March 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Motor Gasoline Blending Components																	
Refinery	4,480	96	4,576	37	4,867	890	2,019	7,813	1,494	8,100	6,939	163	256	16,952	2,727	7,225	39,293
Bulk Terminal	--	--	109	--	--	--	--	145	--	--	--	--	--	775	1	87	1,117
Pipeline	--	--	0	--	--	--	--	33	--	--	--	--	--	17	0	0	50
Total	--	--	4,685	--	--	--	--	7,991	--	--	--	--	--	17,744	2,728	7,312	40,460
Aviation Gasoline Blending Components																	
Refinery	23	0	23	0	186	0	5	191	0	16	145	0	0	161	0	27	402
Total	--	--	23	--	--	--	--	191	--	--	--	--	--	161	0	27	402
Total Finished Motor Gasoline																	
Refinery	5,240	241	5,481	91	7,478	2,071	2,769	12,409	2,152	9,856	5,066	1,404	213	18,691	2,924	8,159	47,664
Bulk Terminal	--	--	41,438	--	--	--	--	33,474	--	--	--	--	--	14,397	1,909	9,418	100,636
Pipeline	--	--	13,612	--	--	--	--	17,246	--	--	--	--	--	20,272	1,426	1,917	54,473
Natural Gas Processing Plant	18	0	18	0	0	0	0	0	0	0	0	0	0	0	7	0	25
Total	--	--	60,549	--	--	--	--	63,129	--	--	--	--	--	53,360	6,266	19,494	202,798
Finished Leaded Motor Gasoline																	
Refinery	1,890	135	2,025	48	3,648	1,210	1,535	6,441	1,105	4,093	2,015	501	137	7,851	1,883	3,824	22,024
Bulk Terminal	--	--	20,819	--	--	--	--	17,356	--	--	--	--	--	7,577	1,218	4,629	51,599
Pipeline	--	--	5,624	--	--	--	--	8,771	--	--	--	--	--	8,651	894	894	24,834
Natural Gas Processing Plant	10	0	10	0	0	0	0	0	0	0	0	0	0	0	5	0	15
Total	--	--	28,478	--	--	--	--	32,568	--	--	--	--	--	24,079	4,000	9,347	98,472
Finished Unleaded Motor Gasoline																	
Refinery	3,350	106	3,456	43	3,830	861	1,234	5,968	1,047	5,763	3,051	903	76	10,840	1,041	4,335	25,640
Bulk Terminal	--	--	20,619	--	--	--	--	16,118	--	--	--	--	--	6,820	691	4,789	49,037
Pipeline	--	--	7,988	--	--	--	--	8,475	--	--	--	--	--	11,621	532	1,023	29,639
Natural Gas Processing Plant	8	0	8	0	0	0	0	0	0	0	0	0	0	0	2	0	10
Total	--	--	32,071	--	--	--	--	30,561	--	--	--	--	--	29,281	2,266	10,147	104,326
Finished Aviation Gasoline																	
Refinery	27	0	27	0	218	0	15	233	129	398	126	0	0	653	43	212	1,168
Bulk Terminal	--	--	367	--	--	--	--	413	--	--	--	--	--	128	15	272	1,195
Pipeline	--	--	68	--	--	--	--	35	--	--	--	--	--	22	0	135	260
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	99	0	0	0	0	99	0	0	99
Total	--	--	462	--	--	--	--	681	--	--	--	--	--	902	58	619	2,722

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, March 1984
(Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Naphtha-Type Jet Fuel																	
Refinery	242	24	266	0	518	108	166	792	269	824	290	132	120	1,635	242	915	3,850
Bulk Terminal	—	—	516	—	—	—	—	528	—	—	—	—	—	83	15	437	1,579
Pipeline	—	—	171	—	—	—	—	104	—	—	—	—	—	452	97	466	1,290
Total	—	—	953	—	—	—	—	1,424	—	—	—	—	—	2,170	354	1,818	6,719
Kerosene-Type Jet Fuel																	
Refinery	1,018	0	1,018	52	1,447	255	128	1,882	339	3,044	2,306	7	40	5,736	447	3,358	12,441
Bulk Terminal	—	—	3,670	—	—	—	—	3,679	—	—	—	—	—	1,856	227	1,706	11,138
Pipeline	—	—	3,050	—	—	—	—	2,214	—	—	—	—	—	4,242	149	667	10,322
Total	—	—	7,738	—	—	—	—	7,775	—	—	—	—	—	11,834	823	5,731	33,901
Kerosene																	
Refinery	252	46	298	0	486	46	234	766	90	655	396	19	31	1,191	4	165	2,424
Bulk Terminal	—	—	3,036	—	—	—	—	790	—	—	—	—	—	574	27	39	4,466
Pipeline	—	—	183	—	—	—	—	202	—	—	—	—	—	558	0	0	943
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2
Total	—	—	3,517	—	—	—	—	1,758	—	—	—	—	—	2,325	31	204	7,835
Distillate Fuel Oils																	
Refinery	4,326	296	4,622	53	4,899	1,569	2,318	8,839	1,096	7,373	3,389	857	214	12,929	2,142	4,909	33,441
Bulk Terminal	—	—	26,344	—	—	—	—	16,096	—	—	—	—	—	4,846	716	4,834	52,836
Pipeline	—	—	6,336	—	—	—	—	8,562	—	—	—	—	—	6,377	545	1,545	23,365
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	2
Total	—	—	37,302	—	—	—	—	33,497	—	—	—	—	—	24,154	3,403	11,288	109,644
Residual Fuel Oils																	
Refinery	2,999	102	3,101	26	1,701	312	198	2,237	395	3,506	2,158	192	9	6,260	494	6,900	18,992
Bulk Terminal	—	—	21,338	—	—	—	—	1,827	—	—	—	—	—	3,646	0	1,664	28,475
Pipeline	—	—	5	—	—	—	—	0	—	—	—	—	—	1	0	166	172
Total	—	—	24,444	—	—	—	—	4,064	—	—	—	—	—	9,907	494	8,730	47,639
Naphtha < 400 Deg. Petro. Feedstock																	
Refinery	303	0	303	0	108	0	56	164	136	864	332	54	0	1,386	0	211	2,064
Total	303	0	303	0	108	0	56	164	136	864	332	54	0	1,386	0	211	2,064
Other Oils > 400 Deg. Petro. Feedstock																	
Refinery	4	0	4	0	25	0	0	25	347	959	249	0	0	1,555	1	371	1,956
Total	4	0	4	0	25	0	0	25	347	959	249	0	0	1,555	1	371	1,956

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, March 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Special Naphthas																	
Refinery	101	47	148	0	186	0	162	348	22	1,299	75	163	0	1,559	8	259	2,322
Bulk Terminal	--	--	466	--	--	--	--	128	--	--	--	--	--	61	0	26	681
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	53	0	0	0	0	53	0	0	53
Total	--	--	614	--	--	--	--	476	--	--	--	--	--	1,673	8	285	3,056
Lubricants																	
Refinery	1,165	828	1,993	0	732	0	494	1,226	14	2,770	1,219	545	0	4,548	61	402	8,230
Bulk Terminal	--	--	1,135	--	--	--	--	777	--	--	--	--	--	278	2	758	2,950
Total	--	--	3,128	--	--	--	--	2,003	--	--	--	--	--	4,826	63	1,160	11,180
Waxes																	
Refinery	9	106	115	0	25	0	42	67	15	245	89	75	0	424	0	59	665
Total	--	--	115	--	--	--	--	67	--	--	--	--	--	424	0	59	665
Petroleum Coke																	
Refinery	872	0	872	0	368	777	135	1,280	0	435	848	198	0	1,481	162	1,885	5,680
Total	872	0	872	0	368	777	135	1,280	0	435	848	198	0	1,481	162	1,885	5,680
Asphalt and Road Oil																	
Refinery	1,512	37	1,549	446	4,446	1,986	910	7,788	1,008	396	354	1,093	284	3,135	2,244	1,794	16,510
Bulk Terminal	--	--	3,593	--	--	--	--	3,926	--	--	--	--	--	609	237	325	8,690
Total	--	--	5,142	--	--	--	--	11,714	--	--	--	--	--	3,744	2,481	2,119	25,200
Miscellaneous Products																	
Refinery	174	17	191	0	118	5	13	136	38	580	92	64	0	774	12	143	1,256
Bulk Terminal	--	--	112	--	--	--	--	25	--	--	--	--	--	37	0	56	230
Pipeline	--	--	14	--	--	--	--	205	--	--	--	--	--	274	0	154	647
Natural Gas Processing Plant	0	0	0	0	2	0	0	2	6	0	0	1	0	7	2	0	11
Total	--	--	317	--	--	--	--	368	--	--	--	--	--	1,092	14	353	2,144
Total Stocks, All Oils	--	--	181,772	--	--	--	--	259,580	--	--	--	--	--	797,049	34,691	170,942	1,444,034

[1] Includes 33,879 thousand barrels of domestic crude oil.

Source: See Explanatory Notes on Data Collection and Estimation.

-- Not Applicable.

Table 21. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge between PAD Districts, March 1984
(Thousand Barrels)

Commodity	From I to			From II to				From III to				From IV to			From V to			
	II	III	V	I	III	IV	V	I	II	IV	V	II	III	V	I	II	III	IV
Crude Oil (Tanker and Barge only)	0	0	0	68	0	0	0	187	1,861	0	0	0	0	0	4,603	1,548	12,709	0
Petroleum Products	8,574	112	0	3,080	8,351	2,412	82	78,525	26,681	0	2,111	1,554	782	1,109	0	0	26	0
Pentanes Plus	0	0	0	0	64	0	0	0	604	0	0	73	115	0	0	0	0	0
Liquefied Petroleum Gases	0	0	0	942	5,761	169	0	1,635	8,333	0	0	647	667	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	82	714	0	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	5,890	0	0	1,430	1,830	1,334	0	45,475	11,768	0	976	540	0	815	0	0	0	0
Finished Leaded Motor Gasoline	3,081	0	0	430	935	715	0	17,240	5,604	0	507	343	0	531	0	0	0	0
Finished Unleaded Motor Gasoline	2,809	0	0	1,000	895	619	0	28,235	6,164	0	469	197	0	284	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	17	0	99	125	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	143	0	0	0	153	0	0	549	1	0	283	89	0	83	0	0	0	0
Kerosene-Type Jet Fuel	295	0	0	79	57	692	0	9,266	2,231	0	456	6	0	35	0	0	0	0
Kerosene	43	0	0	0	0	0	0	399	33	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	2,109	0	0	250	427	200	0	18,445	2,850	0	387	199	0	176	0	0	0	0
Residual Fuel Oil	0	0	0	154	0	0	0	497	62	0	0	0	0	0	0	0	0	0
Naphtha and Other Oils for Petro. Feedstock	35	0	0	12	0	0	0	77	35	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	314	123	0	0	0	0	0	0	0	0	0
Lubricants	9	65	0	53	29	0	0	643	322	0	9	0	0	0	0	0	26	0
Waxes	0	0	0	0	0	0	0	65	0	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	8	0	0	0	144	194	0	0	0	0	0	0	0	0	0
Miscellaneous Products	50	47	0	152	30	0	0	203	0	0	0	0	0	0	0	0	0	0
Total All Products	8,574	112	0	3,148	8,351	2,412	82	78,712	28,542	0	2,111	1,554	782	1,109	4,603	1,548	12,735	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 22. Movements of Petroleum Products by Pipeline between PAD Districts, March 1984
(Thousand Barrels)

Commodity	From I to		From II to			From III to				From IV to			From V to	
	II	III	I	III	IV	I	II	IV	V	II	III	V	III	IV
Pentanes Plus	0	0	0	64	0	0	604	0	0	73	115	0	0	0
Liquefied Petroleum Gases	0	0	942	5,761	169	1,425	8,333	0	0	647	667	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	4,154	0	1,142	1,775	1,334	33,716	11,042	0	976	540	0	815	0	0
Finished Leaded Motor Gasoline	2,172	0	321	892	715	12,830	5,289	0	507	343	0	531	0	0
Finished Unleaded Motor Gasoline	1,982	0	821	883	619	20,886	5,753	0	469	197	0	284	0	0
Finished Aviation Gasoline	0	0	0	0	17	0	107	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	153	0	439	1	0	283	89	0	83	0	0
Kerosene-Type Jet Fuel	182	0	70	57	692	6,203	2,089	0	197	6	0	35	0	0
Kerosene	22	0	0	0	0	380	33	0	0	0	0	0	0	0
Distillate Fuel Oil	1,585	0	181	427	200	14,844	2,508	0	387	199	0	176	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	134	0	0	0	0	0	0	0	0	0	0	0
Total	5,943	0	2,469	8,237	2,412	57,007	24,717	0	1,843	1,554	782	1,109	0	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 23. Movements of Crude Oil and Petroleum Products by Tanker and Barge between PAD Districts, March 1984
(Thousand Barrels)

Commodity	From I to			From II to			From III to						From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Crude Oil	0	0	0	68	0	0	187	0	187	0	1,861	0	4,603	1,548	12,709
Petroleum Products	2,631	112	0	611	114	82	21,518	1,463	3,574	16,481	1,964	268	0	0	26
Liquefied Petroleum Gases	0	0	0	0	0	0	210	0	0	210	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	82	714	0	623	91	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	1,736	0	0	288	55	0	11,759	816	411	10,532	726	0	0	0	0
Finished Leaded Motor Gasoline	909	0	0	109	43	0	4,410	221	15	4,174	315	0	0	0	0
Finished Unleaded Motor Gasoline	827	0	0	179	12	0	7,349	595	396	6,358	411	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	99	12	20	67	18	0	0	0	0
Naphtha-Type Jet Fuel	143	0	0	0	0	0	110	0	0	110	0	0	0	0	0
Kerosene-Type Jet Fuel	113	0	0	9	0	0	3,063	236	495	2,332	142	259	0	0	0
Kerosene	21	0	0	0	0	0	19	0	0	19	0	0	0	0	0
Distillate Fuel Oil	524	0	0	69	0	0	3,601	354	1,068	2,179	342	0	0	0	0
Residual Fuel Oil	0	0	0	154	0	0	497	0	0	497	62	0	0	0	0
Naphtha and Other Oils for Petro. Feed. Use	35	0	0	12	0	0	77	0	36	41	35	0	0	0	0
Special Naphthas	0	0	0	0	0	0	314	37	198	79	123	0	0	0	0
Lubricants	9	65	0	53	29	0	643	0	551	92	322	9	0	0	26
Waxes	0	0	0	0	0	0	65	0	5	60	0	0	0	0	0
Asphalt and Road Oil	0	0	0	8	0	0	144	0	0	144	194	0	0	0	0
Miscellaneous Products	50	47	0	18	30	0	203	8	167	28	0	0	0	0	0
Total	2,631	112	0	679	114	82	21,705	1,463	3,761	16,481	3,825	268	4,603	1,548	12,735

Table 24. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker and Barge between PAD Districts, March 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			PAD District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Shipments from PADD VI	Net Receipts PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts PADD V
Crude Oil (Tanker and Barge only)	4,858	0	4,858	3,409	68	3,341	12,709	2,048	10,661	0	0	0	0	18,860	-18,860
Petroleum Products	81,605	8,686	72,919	36,809	13,925	22,884	9,271	107,317	-98,046	2,412	3,445	-1,033	3,302	26	3,276
Pentanes Plus	0	0	0	677	64	613	179	604	-425	0	188	-188	0	0	0
Liquefied Petroleum Gases	2,577	0	2,577	8,980	6,872	2,108	6,428	9,968	-3,540	169	1,314	-1,145	0	0	0
Unfinished Oils	714	0	714	0	82	-82	0	714	-714	0	0	0	82	0	82
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	46,905	5,890	41,015	18,198	4,594	13,604	1,830	58,219	-56,389	1,334	1,355	-21	1,791	0	1,791
Finished Leaded Motor Gasoline	17,670	3,081	14,589	9,028	2,080	6,948	935	23,351	-22,416	715	874	-159	1,038	0	1,038
Finished Unleaded Motor Gasoline	29,235	2,809	26,426	9,170	2,514	6,656	895	34,868	-33,973	619	481	138	753	0	753
Finished Aviation Gasoline	99	0	99	125	17	108	0	224	-224	17	0	17	0	0	0
Naphtha-Type Jet Fuel	549	143	406	233	153	80	153	833	-680	0	172	-172	366	0	366
Kerosene-Type Jet Fuel	9,345	295	9,050	2,532	828	1,704	57	11,953	-11,896	692	41	651	491	0	491
Kerosene	399	43	356	76	0	76	0	432	-432	0	0	0	0	0	0
Distillate Fuel Oil	18,695	2,109	16,586	5,158	877	4,281	427	21,682	-21,255	200	375	-175	563	0	563
Residual Fuel Oil	651	0	651	62	154	-92	0	559	-559	0	0	0	0	0	0
Naphtha and Other Oils for Petro. Feedstock Use	89	35	54	70	12	58	0	112	-112	0	0	0	0	0	0
Special Naphthas	314	0	314	123	0	123	0	437	-437	0	0	0	0	0	0
Lubricants	696	74	622	331	82	249	120	974	-854	0	0	0	9	26	-17
Waxes	65	0	65	0	0	0	0	65	-65	0	0	0	0	0	0
Asphalt and Road Oil	152	0	152	194	8	186	0	338	-338	0	0	0	0	0	0
Miscellaneous Products	355	97	258	50	182	-132	77	203	-126	0	0	0	0	0	0
Total All Products	86,463	8,686	77,777	40,218	13,993	26,225	21,980	109,365	-87,385	2,412	3,445	-1,033	3,302	18,886	-15,584

Source: See Explanatory Notes on Data Collection and Estimation.

Table 25. Production of Residual Fuel Oil by Sulfur Content, March 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Residual Fuel Oil	3,181	146	3,327	72	1,768	268	418	2,526	923	6,378	2,942	303	12	10,558	421	10,665	27,497
0.00 to 0.30% Sulfur	678	32	710	0	113	0	46	159	83	751	224	58	4	1,120	107	556	2,652
0.31 to 1.00% Sulfur	1,596	0	1,596	30	409	0	196	635	632	739	1,196	167	0	2,734	129	3,639	8,733
Greater Than 1.00% Sulfur	907	114	1,021	42	1,246	268	176	1,732	208	4,888	1,522	78	8	6,704	185	6,470	16,112

Source: See Explanatory Notes on Data Collection and Estimation.

Table 26. Stocks of Residual Fuel Oil by Sulfur Content, March 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Residual Fuel Oil -- 0.00 to 0.30% Sulfur																	
Refinery	526	30	556	0	144	0	48	192	68	101	140	11	3	323	88	165	1,324
Bulk Terminal	--	--	4,579	--	--	--	--	44	--	--	--	--	--	0	0	9	4,632
Total	--	--	5,135	--	--	--	--	236	--	--	--	--	--	323	88	174	5,956
Residual Fuel Oil -- 0.31 to 1.00% Sulfur																	
Refinery	1,342	0	1,342	23	696	0	94	813	148	940	1,028	123	0	2,239	93	2,048	6,535
Bulk Terminal	--	--	8,529	--	--	--	--	494	--	--	--	--	--	1,928	0	429	11,380
Total	--	--	9,871	--	--	--	--	1,307	--	--	--	--	--	4,167	93	2,477	17,915
Residual Fuel Oil -- Greater than 1.00% Sulfur																	
Refinery	1,131	72	1,203	3	861	312	56	1,232	179	2,465	990	58	6	3,698	313	4,687	11,133
Bulk Terminal	--	--	8,230	--	--	--	--	1,289	--	--	--	--	--	1,718	0	1,226	12,463
Total	--	--	9,433	--	--	--	--	2,521	--	--	--	--	--	5,416	313	5,913	23,596

Source: See Explanatory Notes on Data Collection and Estimation.
-- Not Applicable

Table 27. Movements of Residual Fuel Oil by Tanker and Barge between PAD Districts, By Sulfur Content, March 1984
(Thousand Barrels)

Commodity	From I to			From II to			From III to						From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Residual Fuel Oil	0	0	0	154	0	0	497	0	0	497	62	0	0	0	0
0.00 to 0.30% Sulfur	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
0.31 to 1.00% Sulfur	0	0	0	5	0	0	201	0	0	201	0	0	0	0	0
Greater Than 1.00% Sulfur	0	0	0	149	0	0	296	0	0	296	61	0	0	0	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 28. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, March 1984 (Thousand Barrels)

Country	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
Arab OPEC				
Algeria	2,388	0	0	2,388
Iraq	0	0	0	0
Kuwait	496	0	0	496
Libya	0	0	0	0
Qatar	0	0	0	0
Saudi Arabia	514	0	0	514
United Arab Emirates	0	0	0	0
Subtotal Arab OPEC	3,399	0	0	3,399
Other OPEC				
Ecuador	118	0	0	118
Gabon	0	0	0	0
Indonesia	877	1	18	896
Iran	0	0	0	0
Nigeria	0	0	0	0
Venezuela	11	0	823	834
Subtotal Other OPEC	1,006	1	842	1,848
Other				
Angola	0	300	0	300
Australia	0	295	0	295
Bahamas	239	458	321	1,019
Bolivia	0	0	0	0
Brazil	704	0	0	704
Brunei	0	0	0	0
Canada	148	483	485	1,117
Congo	200	0	0	200
Egypt	0	0	0	0
France	0	0	0	0
Ghana	0	0	0	0
Liberia	0	0	453	453
Malaysia	0	5	32	37
Mexico	0	0	6	6
Netherlands	0	0	0	0
Netherlands Antilles	342	0	2,935	3,277
Norway	0	0	0	0
Oman	0	0	0	0
People's Republic of China	0	0	0	0
Peru	160	0	510	671
Puerto Rico	0	0	0	0
Romania	0	0	0	0
Spain	0	0	0	0
Syria	0	0	0	0
Trinidad	0	0	0	0
Tunisia	0	0	0	0
United Kingdom	0	0	0	0
Virgin Islands	1,213	1,320	1,124	3,657
Yugoslavia	0	0	0	0
Zaire	0	0	0	0
Other				
Other Western Hemisphere	662	439	0	1,101
Other Eastern Hemisphere	1,310	204	25	1,539
Subtotal Other	4,979	3,506	5,892	14,376
Total Imports	9,383	3,507	6,734	19,623

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 29. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, March 1984 (Thousand Barrels)

State	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
PAD District I	**7,103**	**3,031**	**6,632**	**16,766**
Connecticut	99	0	0	99
Delaware	0	0	150	150
Florida	118	344	582	1,044
Georgia	0	0	65	65
Maine	0	0	780	780
Maryland	22	0	312	334
Massachusetts	0	0	405	405
New Jersey	503	772	1,194	2,469
New York	5,072	1,439	1,966	8,477
Pennsylvania	1,276	449	48	1,773
South Carolina	0	0	298	298
Vermont	14	27	0	41
Virginia	0	0	832	832
PAD District II	**121**	**265**	**3**	**389**
Michigan	121	265	0	386
North Dakota	(s)	0	3	3
PAD District III	**2,156**	**0**	**0**	**2,156**
Louisiana	586	0	0	586
Texas	1,570	0	0	1,570
PAD District IV	**3**	**0**	**18**	**20**
Montana	3	0	18	20
PAD District V	**0**	**211**	**81**	**292**
California	0	0	6	6
Hawaii	0	211	75	286
All PAD Districts	**9,383**	**3,507**	**6,734**	**19,623**

(s) = Less than 500 barrels.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Glossary

Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; CH-(CH)n-OH. Alcohol includes methanol and ethanol.

Alkylation. A refinery process for chemically combining isoparaffin with olefin hydrocarbons. The product, alkylate, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Deg API} = \frac{141.5}{\text{sp gr } 60\text{F}/60\text{F}} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene.

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor for asphalt is 5.5 barrels of 42 U.S. gallons per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation gasoline.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt and wax to barrels are given in the definitions for these products.

Barrels Per Calendar Day. See ***Operable Capacity***.

Barrels Per Stream Day. See ***Operable Capacity***.

Bi-Metallic. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of two metals (e.g. platinum, rhenium).

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon. (C4H10). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is covered by ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

> ***Isobutane.*** A normally gaseous branch-chain hydrocarbon, (C4H10). It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. It is extracted from natural gas or refinery gas streams.
>
> ***Normal Butane.*** A normally gaseous straight-chain hydrocarbon, (C4H10). It is a colorless paraffinic gas that boils at a temperature of 31.1 degrees F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C4H8), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil.

Catalytic Hydrocracking. A refining process for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. Hydrocracking is an efficient, relatively low temperature process using hydrogen and a catalyst.

Catalytic Hydrotreating. A process for treating petroleum fractions (e.g. distillate fuel oil and residual oil) and unfinished oils (e.g. naphthas, reformer feeds and heavy gas oils) in the presence of catalysts and substantial quantities of hydrogen to upgrade their quality.

Catalytic Reforming. The use of controlled heat and pressure with catalysts to effect the rearrangement of certain hydrocarbon molecules without altering their composition appreciably; the conversion of low-octane gasoline fractions into higher octane stocks suitable for blending into finished gasoline; also the conversion of naphthas to obtain a more volatile product of higher octane number.

Conventional. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of a metal and a non-metal (e.g. platinum, alumina).

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratifed carbonaceous rocks are either solid or brittle and are highly combustible. In-

cludes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Distillation. The refining process of separating crude oil components by heating and subsequent condensing of the fractions by cooling.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite and oil shale. Drip gases are also included, but topped crude oil (residual) oil and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign according to the following:

Domestic. Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 U.S.C. 1331.

Foreign. Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Delayed Coking. A process to produce low Conradson carbon gas for catalytic cracking feedstock and for gasoline.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

No. 1 Fuel Oil. A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 degrees F. at the 10-percent point and 550 degrees F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.

No. 2 Fuel Oil. A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 specifies for this grade distillation temperatures at the 90-percent point between 540 degrees and 640 degrees F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.

No. 1 and No. 2 Diesel Fuel Oils. Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D975:

No. 1-D. A volatile distillate fuel oil with a boiling range between 300-575 degrees F. and used in high-speed diesel engines generally operated under variations in speed and load. Includes type C–B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.

No. 2-D. A gas oil type distillate of lower volatility with distillation temperatures at the 90-percent point between 540-640 degrees F. for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R–R diesel fuel used for railroad locomotive engines, and Type T–T for diesel-engine trucks. Properties are defined in ASTM Specification D975.

No. 4 Fuel Oil. A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV–F–815C; its kinematic viscosity is between 5.8 and 26.4 centistokes at 100 degrees F. Also included is No. 4–D, a fuel oil for low- and medium-speed diesel engines that conforms to ASTM Specification D975.

Eastern Hemisphere. That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electric Energy (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous straight-chain hydrocarbon, ($C2H6$). It is a colorless paraffinic gas that boils at a temperature of – 127.48 degrees F. It is extracted from natural gas and refinery gas streams.

Ethylene. An olefinic hydrocarbon, ($C2H4$), recovered from refinery processes or petrochemical processes.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Fluid Coking. A thermal process utilizing the fluidized-solids technique for continuous conversion of heavy, low-grade oils into lighter products.

Gasohol. See ***Motor Gasoline (Finished).***

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. Derives its name from having originally been used in the manufacture of illuminating gas. Now supplies distillate-type fuel oils and diesel fuel, also cracked to produce gasoline.

Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation or motor gasoline.

Idle Capacity. The component of operable capacity that is not in operation and not under active repairs, but capable of being placed in operation within 30 days; and capacity not in operation but under active repairs that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported

crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Isobutane. See ***Butane.***

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule. Used to convert normal butane into isobutane, an alyklation process feedstock, and normal pentane and hexane into isopentane and isohexane, high-octane gasoline components.

Kerosene. A petroleum distillate that boils at a temperature between 300-550 degrees F., that has a flash point higher than 100 degrees F. by ASTM Method D56, that has a gravity range from 40-46 degrees API, and that has a burning point in the range of 150-175 degrees F. Included are the two classifications recognized by ASTM D3699: No. 1-K and No. 2-K, and all grades of keresene called range or stove oil which have properties similar to No. 1 fuel oil, but with a gravity of about 43 degrees API and a maximum end-point of 625 degrees F. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with an average gravity of 40.7 degrees API, and a 10 percent distillation temperature of 400 degrees F. It is covered by ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type; it is used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and nonassociated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Liquefied Petroleum Gases (LPG). Ethane, Ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/ or refrigeration they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane. Excludes still gas used for chemical or rubber manufacture which is reported as a petrochemical feedstock and also excludes liquefied petroleum gases intended for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstock or other uses.

Lubricating Oils. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include:

> ***Bright Stock.*** A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.
>
> ***Neutral.*** A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100 degrees F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.
>
> ***Other.*** A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere, e.g., petrolatum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, speciality oils and medicinal oils.

Motor Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Specifications for motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, include a boiling range of 122-158 degrees F. at the 10-percent point to 365-374 degrees F. at the 90-percent point and a Reid vapor pressure range from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

> ***Finished Leaded Gasoline.*** Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.
>
> ***Finished Unleaded Gasoline.*** Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blend stock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.
>
> ***Gasohol.*** A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol) in which 10 percent or more of the product is alcohol.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range with an average gravity of 52.8 degrees API and 20 to 90 percent distillation temperatures of 290 degrees to 470 degrees F, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specification of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: Ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e. products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C_5H_{12}), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Normal Butane. See ***Butane.***

OPEC. The acronym for the Organization of Petroleum Exporting Countries, oil-producing and exporting countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation, and not under active repairs but capable of being placed in operation within 30 days; or not in operation but under active repairs that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed in an atmospheric distillation facility during a twenty-four hour period after making allowances for the following limitations:

The capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation.

The types and grades of inputs to be processed.

The types and grades of products expected to be manufactured.

The environmental constraints associated with refinery operations.

The reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs and turnaround.

The reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude and product slate conditions.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as raw materials. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline and plant condensate.

Petrochemical Feedstock Use. Chemical feedstocks derived from petroleum, principally for the manufacture of chemicals, synthetic rubber and a variety of plastics. The categories reported are "Naphtha-Less than 400 degrees F. end-point" and "Other oils over 400 degrees F. end point."

Naphtha-Less Than 400 Degrees F. End-Point. A naphtha with an end point of less than 400 degrees F. that is intended for use as a petrochemical feedstock.

Other Oils-Over 400 Degrees F. End-Point. Oils with an end point over 400 degrees F. that is intended for use as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels of 42 U.S. gallons per short ton.

Marketable Coke. Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (i.e., catalytic cracking) carbon is deposited on the catalyst thus, deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refinery process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400 F. end-point, other oils-over 400 F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Petroleum Refinery. An installation that manufacturers finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks excludes stocks of foreign origin that are held in bonded warehouse storage.

Propane. A normally gaseous straight-chain hydrocarbon, (C_3H_8). It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees F. It is extracted from natural gas or refinery gas streams. It includes all products covered by Gas Processors Association Specifications for commercial propane and HD-5 propane and ASTM Specification D1835.

Propylene. An olefinic hydrocarbon, (C_3H_6), recovered from refinery processes or petrochemical processes.

Residual Fuel Oil. The topped crude of refinery operations which includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D396 and Federal Specification VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2 (NATO Symbol F-77), and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust pallative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Special Naphthas. All finished products within the gasoline range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point and have a boiling range of 90 degrees to 220 degrees F. "Special naphthas" includes all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and/or refinery fuel use.

Petrochemical Feedstock Use. Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc. are considered petrochemical products; therefore, only their feedstock equivalents are included.

Fuel Use. All other still gas.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking is used to increase the yield of gasoline obtainable from crude oil.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid-being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal cracking process in which heavy vacuum-still bottoms produced on the primary distillation unit are cracked to increase production of distillate products.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series pre-

dominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42-U.S. gallon barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics:

Penetration at 77 degrees F. (D1321)-60 maximum. Viscosity at 210 degrees F. in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics:

Viscosity at 210 degrees F. (D88)-59.9 SUS (10.18 centistokes) maximum. Oil Content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics:

Viscosity at 210 degrees F. (D88)-59.9 SUS (10.18 centistokes) maximum. Oil Content (D721)-0.51 percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that includes North and South America and adjacent islands.

Bureau of Mines Petroleum Refining Districts and PAD Districts

The following are the Bureau of Mines petroleum refining districts which make up the PAD districts:

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian #1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

PAD District II

Appalachian #2: The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

Indiana—Illinois—Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

Minnesota—Wisconsin—North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma—Kansas—Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana—Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

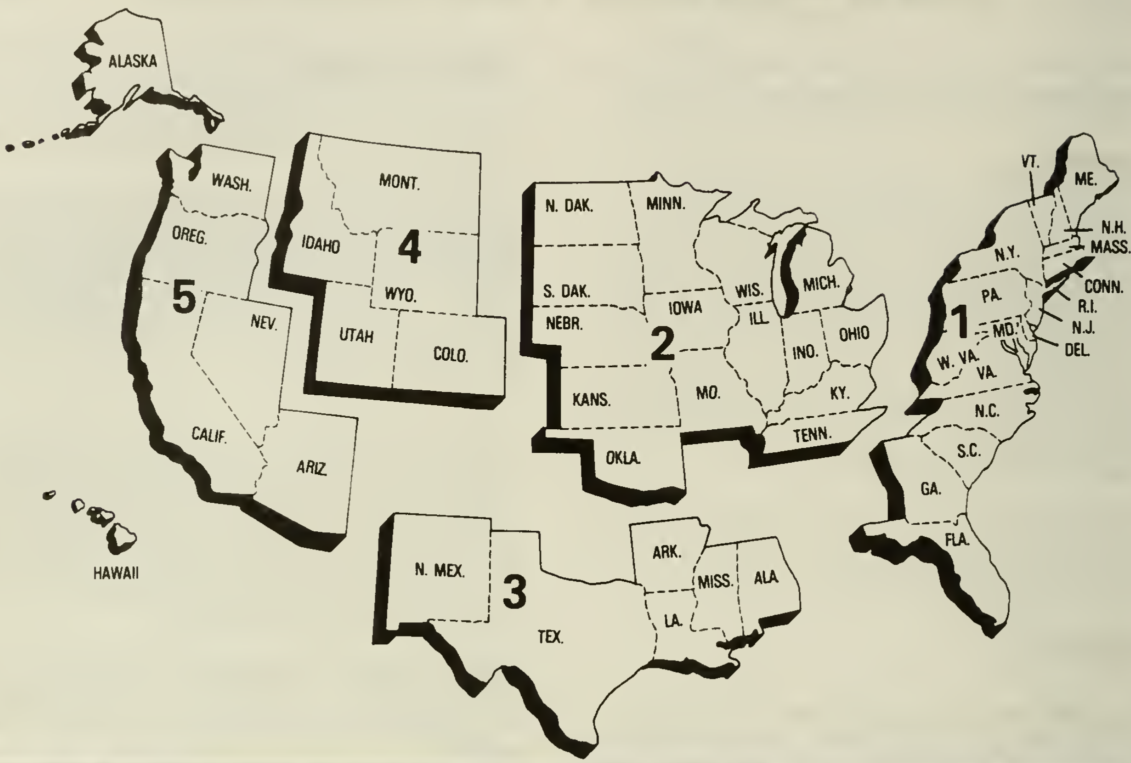
PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

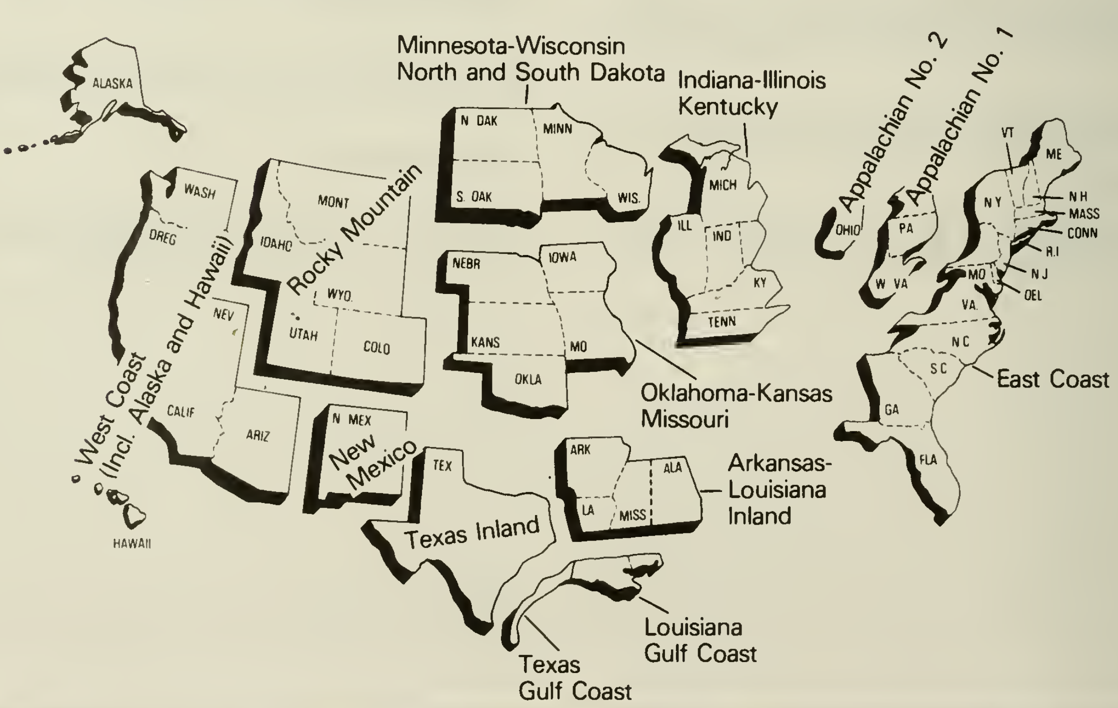
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

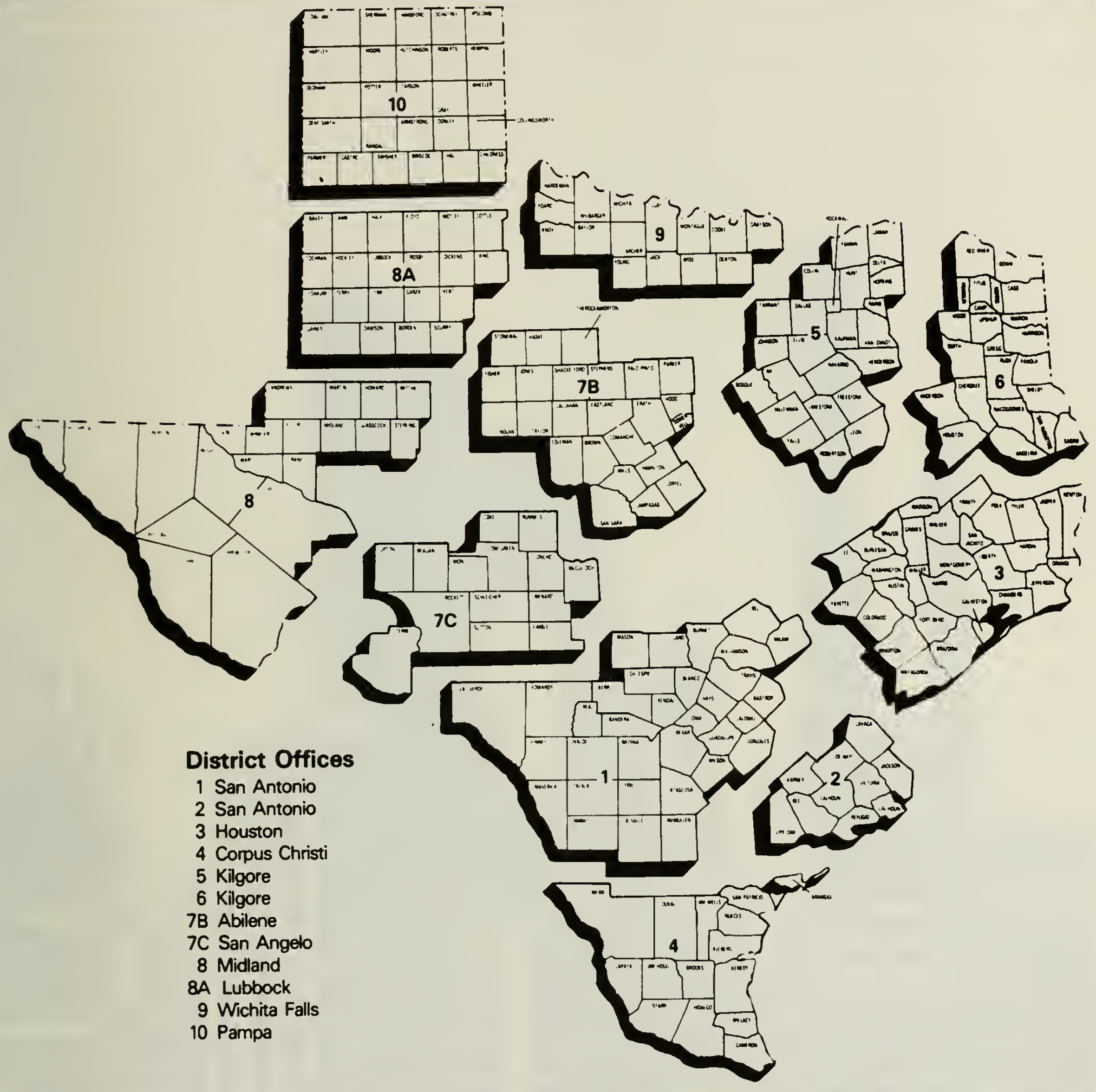
Petroleum Administration for Defense (PAD) Districts



Bureau of Mines Refining Districts



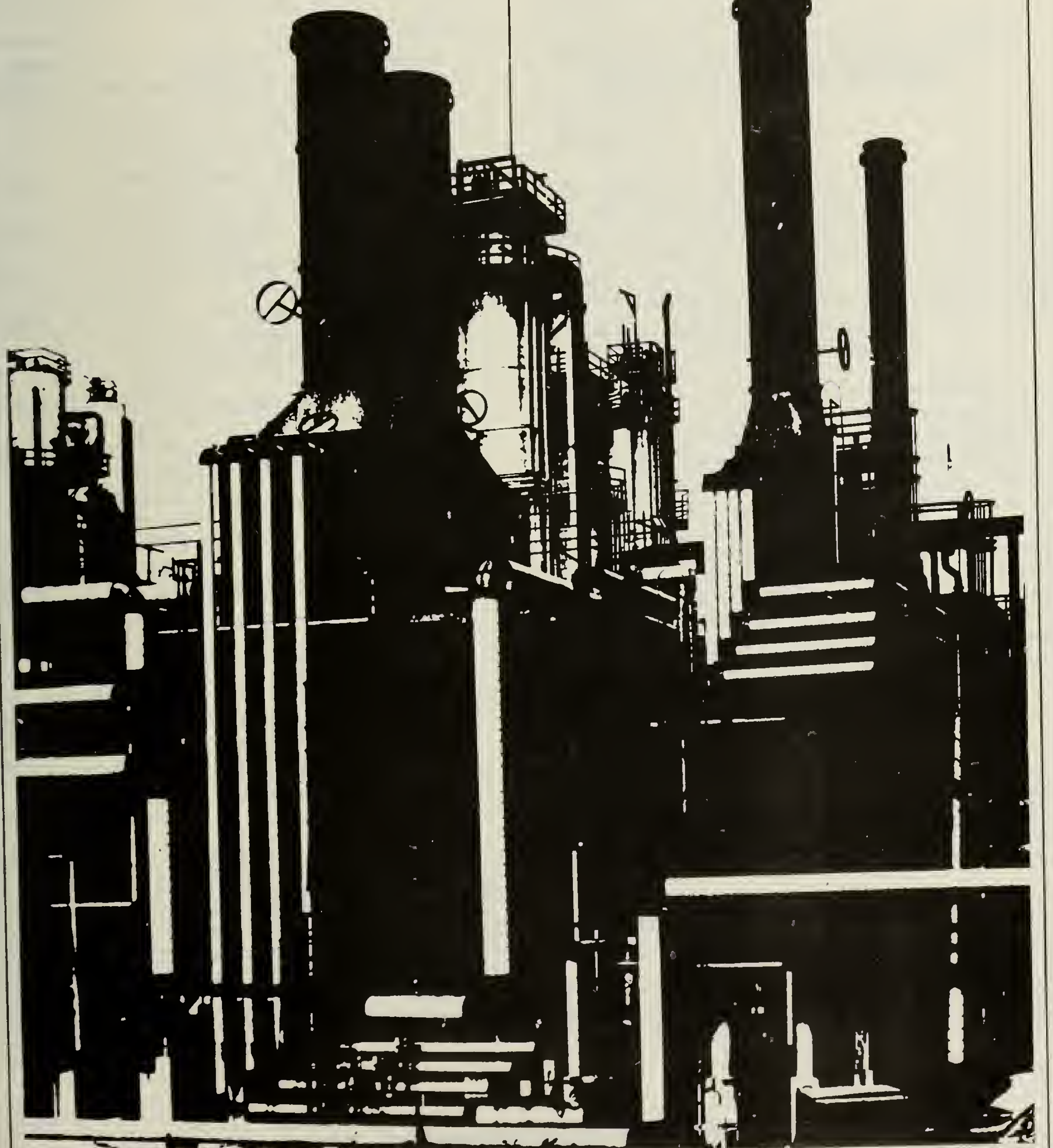
District Map Oil and Gas Division Railroad Commission of Texas



District Offices

- 1 San Antonio
- 2 San Antonio
- 3 Houston
- 4 Corpus Christi
- 5 Kilgore
- 6 Kilgore
- 7B Abilene
- 7C San Angelo
- 8 Midland
- 8A Lubbock
- 9 Wichita Falls
- 10 Pampa

Explanatory Notes



LIBRARY U. OF I. URBANA-CHAMPAIGN

Explanatory Notes

Note 1: Data Collection Methodology

Background

Beginning in January 1983, the Energy Information Administration (EIA) unified its petroleum supply data collection activities into the Petroleum Supply Reporting System (PSRS). The PSRS represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The primary focus of the consolidation has been to revise the weekly and monthly survey reporting forms to assure consistency in form layout, preparation instructions, and definitions. As a result, a new set of survey forms were implemented in January 1983. The following are the new form numbers and their corresponding predecessor forms:

New Form Number	Name	Old Form Number
EIA-800	Weekly Refinery Report	EIA-161
EIA-801	Weekly Bulk Terminal Report	EIA-162
EIA-802	Weekly Product Pipeline Report	EIA-163
EIA-803	Weekly Crude Oil Stocks Report	EIA-164
EIA-804	Weekly Imports Report	EIA-165
EIA-805	Weekly Shipments from Puerto Rico to the United States Report	—
EIA-810	Monthly Refinery Report	EIA-87
EIA-811	Monthly Bulk Terminal Report	EIA-88
EIA-812	Monthly Product Pipeline Report	EIA-89
EIA-813	Monthly Crude Oil Report	EIA-90
ERA-60	Monthly Imports Report	ERA-60
EIA-815	Monthly Shipments from Puerto Rico to the United States Report	FEA-P133-M-0
EIA-816	Monthly Natural Gas Liquids Report	EIA-64
EIA-817	Monthly Tanker and Barge Movement Report	EIA-170

Forms EIA-800 through 805 comprise the Weekly Petroleum Supply Reporting System (WPSRS). This system is designed to collect basic refinery operations and product stock data for major products on a weekly basis. Data from the WPSRS are published in the *Weekly Petroleum Status Report (WPSR)* and are also used to calculate the preliminary statistics in the "Summary Statistics" section of the *Petroleum Supply Monthly (PSM)*. A description of the WPSRS survey forms follows in Note 1.1.

Forms EIA-810-813, 815-817 and ERA-60 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery operations data, refinery, bulk terminal and pipeline stocks data, crude oil and petroleum product imports data and movements of petroleum products and crude oil between PAD Districts data. These surveys are the primary source of data for the "Summary Statistics" and "Detailed Statistics" sections of the *PSM*. A description of MPSRS survey forms follows in Note 1.2.

Data are also obtained in magnetic tape form from the Bureau of the Census on a monthly basis. These tapes contain aggregated import and export statistics that are used in the preparation of the *PSM*. A description of the Census data follows in Note 1.3.

Note 1.1: Weekly Petroleum Supply Reporting System (WPSRS)

Background

The EIA first began publishing weekly petroleum supply statistics in April 1979 in response to the Iranian oil crisis. Initially, the published data were taken from the American Petroleum Institute (API) *Weekly Statistical Bulletin*. However, in January 1980 the EIA began to publish weekly statistics from its own surveys, with the exception of imports statistics which the EIA did not begin collecting until June 1980.

The weekly surveys collect data comparable to those collected on a monthly basis. Selected petroleum companies report weekly data to the EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports each shipment entering the United States. On Form EIA-805, a company shipping unfinished oils and finished petroleum products into the United States from Puerto Rico reports each shipment. Current weekly data and the most recent monthly data are used to estimate the totals that are published in the *Weekly Petroleum Status Report.*

Sample Frame

The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Sampled companies report data only for facilities in the 50 States and District of Columbia.

The sample for each survey is taken from the following universe:

EIA-300: Based on the EIA-810 universe, which includes all petroleum refineries in the United States and

its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and plants that produce finished motor gasoline through mechanical blending. The selected sample size is 215.

EIA-801: Based on the EIA-811 universe, which includes all bulk terminal facilities in the United States and its territories that have either a total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The selected sample size is 93.

EIA-802: Based on the EIA-812 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that transport only natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies that transport products covered in the weekly survey are included. The selected sample size is 65.

EIA-803: Based on the EIA-813 universe, which consists of all companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-804: Based on the ERA-60 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico. The selected sample size is 65.

EIA-805: Based on the EIA-815 universe, which includes all shippers of unfinished oils and petroleum products into the United States from Puerto Rico. Four companies report.

Sampling Method

The cut-off method is the sampling procedure used for all weekly surveys except the EIA-802, which uses the monthly universe in its entirety. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous 12-month period. Companies are chosen for the sampling, beginning with the largest and adding companies until the total sample covers 90 percent of the total for the previous time period for each product published in the *Weekly Petroleum Status Report.*

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. The report period closes each Friday at 7 a.m. All canvassed firms and terminal operations companies must file by 5 p.m. on the following Monday.

Estimation and Imputation

After company reports have been checked and entered into the weekly data base, weekly totals for given products are estimated by using the following formula.

The total reported by all companies for the most recent month (M_t) is divided by the amount reported by the sample of companies for the most recent month (M_s). The result is multiplied by the amount reported by the sample of companies for the current week (W_s). The answer, W_t, is an estimate of the amount that would have been reported by all companies for the current week if all companies reported each week.

$$W_t = \frac{M_t}{M_s}(W_s)$$

This procedure is used to estimate total weekly inputs to refineries and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of weekly imports is the sum of the smoothed ratio multiplied by the weekly values and estimates for shipments from Puerto Rico. Imports of other oils includes an adjustment from Census data for unlicensed products because of coverage differences between the monthly imports data and Census data.

Explicit imputation is done for companies which do not respond in a given week. The imputed values are exponentially smoothed means of recent reports from the specific company.

Response Rates

The response rate for the published estimates is usually between 95 and 98 percent.

Note 1.2: Monthly Petroleum Supply Reporting System (MPSRS)

Background

The MPSRS was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that have been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems

were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movements of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS is the first effort to make them all consistent and comparable.

Respondent Frame

EIA-810: All petroleum refineries and plants that produce finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, the Hawaiian Foreign Trade Zone, and Guam. Approximately 313 respondents report on the EIA-810.

EIA-811: All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have a total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline, regardless of ownership of the material. Approximately 328 respondents report on the EIA-811.

EIA-812: All products pipeline companies that carry petroleum products (including interstate, intrastate and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 94 respondents report on the EIA-812.

EIA-813: All companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-815: All licensed importers and importers of record shipping petroleum products from Puerto Rico into the 50 States and the District of Columbia.

Import data from the ERA-60 and EIA-815 are integrated into the import statistics reported in the *PSM*.

EIA-816: All operators of facilities designed to extract liquid hydrocarbons from natural gas stream (natural gas processing plants) or to separate a hydrocarbon stream into its component products, i.e., propane, butane, natural gasoline, etc. (fractionators). Approximately 990 respondents report on the EIA-816.

EIA-817: All known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are about 50 respondents.

ERA-60: All licensed importers and importers of record importing crude oil and petroleum products into the United States and Puerto Rico. The respondent universe consisted of approximately 1,100 firms as of July 31, 1982. However, only a selected 250 importers must report each month regardless of import activity. All others must report only for a month in which they actually had imports. The respondent universe for this survey is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

EIA utilizes a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review industry publications such as the *Oil and Gas Journal* and *LP Gas Almanac* for information on facilities or companies going into operation or closing down. These are augmented by articles in newspapers, letters from respondents indicating changes in status and information received from survey systems operated by other offices.

Periodically an extensive survey study is conducted to completely refresh the frames. This involves consolidating information from every known source including State agencies, federal agencies (e.g., EPA, Corps of Engineers, Census Bureau, etc.), and private industry directories. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Completed forms are required to be postmarked by the 20th day following the end of the report month, with the exception of the EIA-815 and ERA-60 which are due 15 work days following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline, for their data. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed only for nonresponding companies that submitted reports the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by submission of actual data. Data for nonrespondents on the EIA-815 and 817, and ERA-60 are not imputed.

Response Rates

As of the filing deadline, the response rates of the EIA-810 through EIA-813 respondents is over 90 per-

cent. The response rate for the EIA-816 is over 85 percent and for the EIA-817 it is 98 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Names of companies that fail to file for 2 consecutive months are forwarded for further noncompliance action.

In July 1983, the ERA-60 survey had a response rate of 99.9 percent by the filing deadline. The universe was 1,100 firms at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard follow-up of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. In addition, response is cross-checked with response on the Petroleum Licensing Decrementation System (PLDS), a listing of each month's importers. The response rate is generally 98 to 99 percent by the time the data are first published.

Note 1.3: Census Import (IM-145) and Export (EM-522 and EM-594) Data

Background

Each month the EIA purchases magnetic tapes of aggregated import and export statistics from the Bureau of the Census. These data provide the only source of export statistics and are used to augment the import data collected by the EIA. Export statistics and import data from the Census tapes on liquefied petroleum gases and bonded ship bunkers are published in the *PSM*.

Import Statistics (IM-145)

Coverage

The import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise in-transit through the United States, when documented with Customs as an in-transit movement.

2. Shipments from anywhere to U.S. possessions and shipments from U.S. possessions to the United States. (U.S. possessions include Puerto Rico, the Virgin Islands, Guam, and American Samoa.)

3. U.S. merchandise that was held in foreign countries by the U.S. Armed Forces and is returned to the United States for the use of the Armed Forces.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501, 7505, and 7506).

Imported petroleum is reported as *Imports for Consumption*. Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics (EM-522 and EM-594)

Coverage

The export statistics reflect both government and nongovernment exports of domestic and foreign merchandise from the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. All shipments from U.S. possessions, regardless of whether the shipments are sent to the United States, to other U.S. possessions, or to foreign countries.

2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.

3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Exporters are required to file Shipper's Export Declarations with Custom's officials. The only exceptions are those exporters who have been authorized to submit data directly to the Bureau of Census on magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations.

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 2: Supply

The components of petroleum supply are field production, refinery production, imports, and stock withdrawal or addition:

Field Production is the sum of crude oil production (including lease condensate), natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation and revenue agencies. For further explanation, see Explanatory Note 3.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-816, *Monthly Natural Gas Liquids Report*. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.2.

Refinery Production of petroleum products is reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports of crude oil and petroleum products are reported monthly on Form ERA-60, *Report of Oil Imports into the United States and Puerto Rico*, and Form EIA-815, *Shipments of Refined Products (Including Unfinished Oils) from Puerto Rico to the United States*. In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501, 7505, and 7506. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum gases (LPG), where the Census data show a much higher level of imports than EIA data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and LPGs are not licensed products. Therefore, respondents that import only LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha- and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

Stock Withdrawal (+) or Addition (−) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the same month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (−) would represent a buildup of stocks and a reduction in the amount of petroleum supplies distributed for domestic consumption. For a description of survey forms used to make stock withdrawal or addition calculations see Explanatory Note 5.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition.

Crude oil supply is the sum of field production, imports and stock withdrawals or additions. Crude oil disposition is the sum of exports, refinery input, losses and product supplied. Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used.

Note 3: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the State conservation agencies, which collect crude oil production values for tax purposes. The U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of ten State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports

from the State conservation agencies and the U.S. Geological Survey. The ten States that do not report monthly values are Indiana, Kentucky, Missouri, Arkansas, Utah, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly COPS information becomes available. Table 11 of this publication provides information on crude oil production for the most recent month for which COPS values are available. In order to present more timely crude oil production values, the EIA's Dallas Field Office prepares a series of State level estimates which are based on historical production patterns and are summed to obtain the monthly crude oil production values shown in the summary statistics of this publication.

The individual State level estimates are either exponential curve fitted projections based on recent data or are constant level projections based on the average production rate during a recent time period. In some cases, adjustments are made to these estimates based on additional information on expected changes in production rates supplied by a State agency, a trade association, or an individual field operator.

Note 4: Disposition

The components of petroleum disposition are crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Crude Oil Losses is the sum of crude oil losses at refineries. Crude oil losses at refineries are reported on Form EIA-810, *Refinery Report.*

Refinery Inputs of crude oil, natural gas plant liquids, and other liquids are reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published inputs of unfinished oils and of motor and aviation gasoline blending components equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-810, by refineries located in these places.

Product Supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, minus crude oil losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) data were misreported or reported late, (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel oil. These data are reported on Form EIA-813, *Monthly Crude Oil Report.* Prior to January 1983, crude oil burned on leases and by pipelines as fuel oil were reported as either distillate or residual fuel oil and included in product supplied for these products.

Note 5: Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-810, *Monthly Refinery Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form EIA-800, *Weekly Refinery Report*, and on Form EIA-803, *Weekly Crude Oil Stocks Report*. Primary stocks of petroleum products are summed from data reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, Form EIA-810, *Monthly Refinery Report*, Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-812, *Monthly Product Pipeline Report*. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-800, *Weekly Refinery Report*, Form EIA-801, *Weekly Bulk Terminal Report*, and Form EIA-802, *Weekly Crude Oil Stocks Report*. For survey descriptions and other details, see Explanatory Notes 1.1 - 1.3.

Note 6: Average Stock Levels

The graphs displaying monthly stock levels of crude oil, motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases, and other products provide the user with recent data as well as a summary of data from January through December or from July through June for the most recent 3-year period. This summary takes the form of an *average range* that includes seasonal variation determined from a longer time period. The

verage range represents the historical pattern; it is not forecast.

hese curves are updated semiannually (On April 1 and ctober 1), by basing the *average ranges* on a more reent time period. Each 3-year data series is adjusted by ropping the first 6 months and including the most reent 6 months.

or each data series, the monthly seasonal factors are stimated by means of a seasonal adjustment techique developed at the Bureau of the Census (Census -11). The seasonal factors are assumed to be stable i.e., unchanging from year to year) and additive. The seies is deseasonalized by subtracting the seasonal facor for the appropriate month from the reported stock evels. The intent of deseasonalization is to remove nly seasonal variation from the data. Thus, a deseaonalized series would contain the same trends and iregularities as the original data. For crude oil stocks, the derived seasonal factors are very small relative to crude oil stock levels. Therefore, the seasonal factors for distillate fuel oil, residual fuel oil, liquefied petroleum gases and other products are derived using monthly data from 1974-1980. For motor gasoline, the seasonal factors are based on monthly data from 1975, 1976, 1978, 1979 and 1980. In 1977, there was virtually no seasonal behavior in motor gasoline stocks. Monthly stock levels stayed at the same high level for the entire year. In addition, the seasonal patterns in 1973, 1974 and 1977 were not representative of the recent past, and these years were not used in the determination of seasonal patterns for motor gasoline stocks. Because of these differences in the year-to-year seasonal fluctuation of motor gasoline, the evidence for the illustrated seasonal patterns for crude oil, distillate fuel oil, residual fuel oil, liquefied petroleum gases and other products is stronger than is the evidence for the illustrated seasonal patterns for motor gasoline.

In some cases, these seasonal patterns do not show a smooth transition from month to month. For example, the June factor for residual fuel oil is slightly less than the May and July values, making a bump in the curve. As there is little difference in the magnitude of these seasonal factors, it is possible that this variation is due to the small number of observations (7 years) and the data variability.

After seasonal factors are derived, the most recent 3-year period (from January through December or from July through June) is deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard error of the deseasonalized 36 months is calculated adjusting for extreme data points. The width of the *average range* is twice this standard error.

The upper curve of the *average range* is defined as the average plus the seasonal factors plus the standard error. The lower curve is defined as the average plus the seasonal factors minus the standard error.

Note 7: Movements

Movements of crude oil between PAD Districts are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Petroleum product movements are reported on Forms EIA-817, *Monthly Tanker and Barge Movement Report*, and EIA-812, *Monthly Product Pipeline Report*. Net receipts is the difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge. For survey descriptions and other detail, see Explanatory Note 1.2.

Note 8: Preliminary Monthly Statistics

Weekly data (Forms EIA-800, 801, 802, 803, and 804) are used to estimate the most recent monthly values for the *Summary Statistics* section. Since some of the weekly reporting periods overlap two adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To estimate crude oil and petroleum product imports, crude oil input to refineries and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel oil, and residual fuel oil) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the two weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of the earlier of the two weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 3.

Note 9: Notes on Tables

Note 9.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (−), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.

- Natural Gas Plant Production is the sum of Natural Gas Liquids and Finished Petroleum Products Field Production in Table 4.

- Petroleum Products Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.

- Total Crude Oil and Petroleum Products Ending Stocks appear in thousand barrels in Table 2.

Note 9.2 Crude Oil Supply and Disposition statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (–), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.

- Crude Losses and Product Supplied appear as labeled in Table 4.

- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousand barrels in Table 1.

- Total Crude Oil Ending Stocks appear in thousand barrels in Table 2.

- Total Imports appear in Table 4.

Note 9.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (–), Exports, and Product Supplied appear as labeled in Table 4.

- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (–), Exports, and Product Supplied appear as labeled in Table 4.

- Ending Stocks appear in thousand barrels in Table 2.

Note 9.5 Liquefied Petroleum Gases Supply and Disposition statistics represent the aggregation of statistics on ethane, propane, butane, butane-propane mixtures, ethane-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stocks Withdrawal (+) or Addition (–), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.

- Ending stocks appear in thousand barrels in Table 2.

Note 9.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.

- Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (–), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2. .

Note 9.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3): Crude oil (including lease condensate) production for *Alaska*, *Lower 48 States*, and *Total U.S.* are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 3), and taking the difference to equal production in the Lower 48 States.

- Line (5): *SPR Imports* are reported on Survey Form ERA-60.

- Line (12): *Total Other Sources* equals crude oil stock withdrawal (+) or addition (–) plus unaccounted for crude oil minus crude losses in Table 2.

- Line (14): Natural gas plant liquids (NGPL) *Production* equals field production of natural gas liquids (NGL) plus field production of finished petroleum products in Table 2.

- Line (15): NGPL *Imports* equals the sum of the im-

ports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.

- Line (16): NGPL *Stock Withdrawal (+) or Addition (−)* is equal to the sum of stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.

- Line (17) equals the sum of lines (14), (15), and (16).

- Line (18): Unfinished oils and gasoline blending components *Stock Withdrawal (+) or Addition (−)* equals stock withdrawal (+) or addition (−) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.

- Line (20): *Other Hydrocarbons and Alcohol New Supply* equals the field production of same in Table 2.

- Line (21): *Refinery Processing Gain* is a balancing item equal to total refinery production minus total refinery input in Table 2.

- Line (23): *Total Other Liquids* equals the sum of lines (18) through (22).

- Line (24): *Total Production of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil product supplied in Table 2.

- Line (25): *Gross Imports of Refined Products* equals imports of LPG plus imports of finished petroleum products in Table 2.

- Line (26): *Exports of Refined Products* equals exports of LPG plus exports of finished petroleum products in Table 2.

- Line (27): *Net Imports of Refined Products* equals the difference between lines (25) and (26).

- Line (28): *Total New Supply of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; minus crude oil product supplied plus imports of LPG and finished petroleum products; minus exports of LPG and finished petroleum products in Table 2.

- Line (29): *Refined Products Stocks Withdrawal (+) or Addition (−)* equals the sum of stock withdrawal (+) or addition (−) for LPG and finished petroleum products in Table 2.

- Line (30): *Total Petroleum Products Supplied for Domestic Use* equals total products supplied in Table 2.

- Lines (31) through (35) equal the respective products supplied in Table 2.

- Line (36): *Other Products Supplied* equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock use, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, unfinished oils, motor gasoline blending components, aviation gasoline blending components and miscellaneous products supplied in Table 2.

- Line (37): *Total Product Supplied* is equal to total products supplied in Table 2.

- The sum of lines (38) and (39), stocks of *Crude Oil and Lease Condensate (Excluding SPR)* and stocks held by the *Strategic Petroleum Reserve*, equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-813.

- Line (43): stocks of *Refined Products*, equals the sum of LPG and finished petroleum product stocks in Table 2.

Note 10: New Stock Basis

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,420; and 1982 - 1,462.

- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).

- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.

- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.

- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.

- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.

- Stock withdrawal calculations beginning in 1975, 1981, 1983 were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Products Supply and Disposition" table in the Summary Statistics, is now reported on a component basis (ethane, propane, normal butane, isobutane and pentanes plus). Most of these stocks will now appear in the "Liquefied Petroleum Gases Supply and Disposition" table of the Summary Statistics. This change will affect stocks reported and stock withdrawals in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 1983 - 108

- Other Petroleum Products: 1983 - 248

Note 11: Stocks of Alaskan Crude Oil

Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 12: Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting systems.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings throughout 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. This difference increased to about 4 percent in 1979 and 5 percent in 1980. There are two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference—in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied. EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years. EIA has recently published a study of the quality of these FHWA data.[1]

---

[1] Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *Error Profile of the Motor Fuel Taxation Data used to Establish and Monitor State Emergency Conservation Targets* (Washington, D.C: December, 1981).

Finished Motor Gasoline Product Supplied on Old and New Basis (Thousand Barrels per Day)

	1979				1980			
	EIA Reported	API Recast	EIA Recast	FHWA[1]	EIA Reported	API Recast	EIA Recast	FHWA[1]
Jan	6,830	7,230	7,084-7,246	6,984	6,323	6,789	6,630-6,791	6,672
Feb	7,254	7,496	7,389-7,568	7,538	6,596	6,983	6,831-7,003	6,830
Mar	7,229	7,414	7,301-7,463	7,316	6,406	6,753	6,607-6,768	6,713
Apr	7,055	7,300	7,187-7,353	7,375	6,800	7,014	6,886-7,052	6,981
May	7,213	7,429	7,313-7,475	7,428	6,729	6,954	6,823-6,984	7,044
Jun	7,191	7,483	7,350-7,516	7,441	6,657	6,966	6,824-6,991	7,049
Jul	6,902	7,241	7,105-7,266	7,299	6,743	6,973	6,960	7,132
Aug	7,330	7,546	7,426-7,588	7,619	6,648	6,841	6,828	7,090
Sep	6,881	7,122	7,016-7,262	7,232	6,510	6,692	6,962	6,685
Nov	6,791	7,068	6,956-7,122	7,142	6,234	6,507	6,516	6,951
Dec	6,730	7,106	6,966-7,127	7,064	6,632	6,948	6,936	6,993
Average	7,034	7,302	7,183-7,347	7,309	6,579	6,882	6,806-6,889	6,925

[1] FHWA gasoline statistics published in their 1979 Table MF-33G, 08-06-80, contain aviation gasoline as well as motor gasoline. Only motor gasoline data are included in published 1980 data. Consequently, the 1979 data shown above were reduced by subtracting aviation gasoline product supplied quantities as published by EIA in the 1979 *Petroleum Statement Annual*. The 1980 FHWA data published in their 1980 Table MF-33GA, August 1981, did not require this adjustment.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oil produced by a refinery is shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981 this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1980 as published (adjusted) and on the same basis as 1981 statistics are now being completed (unadjusted) to permit comparison between 1980 and 1981 data series. Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Adjusted and Unadjusted Refinery Production, and Unadjusted Product Supplied of Distillate and Residual Fuel Oils, by Month for 1979 and 1980 (Thousand Barrels Per Day)

1979

	Distillate Fuel Oil				Residual Fuel Oil			
Month	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,043	3,108	65	4,646	1,912	1,946	34	3,594
Feb.	2,888	2,945	57	4,869	1,792	1,822	30	3,625
Mar.	3,019	3,026	7	3,671	1,719	1,723	4	3,243
Apr.	2,945	2,978	32	3,048	1,639	1,656	17	2,524
May	3,066	3,093	27	3,025	1,586	1,600	14	2,517
Jun.	3,153	3,187	35	2,743	1,548	1,566	18	2,601
Jul.	3,305	3,344	38	2,601	1,575	1,594	20	2,471
Aug.	3,321	3,359	38	2,799	1,584	1,603	20	2,570
Sep.	3,354	3,306	– 48	2,599	1,627	1,602	– 25	2,584
Oct.	3,251	3,217	– 34	3,085	1,629	1,612	– 17	2,523
Nov.	3,239	3,200	– 39	3,208	1,736	1,716	– 20	2,795
Dec.	3,221	3,238	17	3,725	1,894	1,903	9	3,022
Average	3,152	3,169	16	3,327	1,687	1,695	8	2,834

1980

	Distillate Fuel Oil				Residual Fuel Oil			
Month	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,013	3,093	80	3,794	1,771	1,812	41	3,108
Feb.	2,766	2,888	122	3,834	1,773	1,836	63	3,168
Mar.	2,557	2,690	133	3,312	1,584	1,652	68	2,726
Apr.	2,460	2,554	94	2,729	1,595	1,643	48	2,492
May	2,474	2,610	136	2,538	1,509	1,579	70	2,305
Jun.	2,646	2,721	75	2,392	1,575	1,613	38	2,359
Jul.	2,689	2,783	94	2,343	1,480	1,528	48	2,339
Aug.	2,461	2,582	121	2,258	1,444	1,506	62	2,348
Sep.	2,686	2,726	40	2,627	1,495	1,516	21	2,380
Oct.	2,589	2,650	61	2,981	1,512	1,543	31	2,258
Nov.	2,703	2,823	120	3,069	1,579	1,641	62	2,513
Dec.	2,891	3,052	161	3,776	1,660	1,743	83	2,762
Average	2,661	2,764	103	2,969	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Sinc these changes only involve redistribution of the vol umes of gasoline, distillate and residual fuel oil, gaso line blending components, and unfinished oils, th total volume of petroleum products supplied remain unaffected by them.

Note 13: NGL Import/Export Algorithms

Beginning in January 1984, the Energy Information Administration (EIA) implemented changes in the reporting of natural gas liquid (NGL) supply data, moving from a nine-product slate to a five-component slate that corresponds to industry record-keeping practices. Changes could not be made to the import and export systems. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm is based on information gathered from the larger importers of NGL, who were asked to provide component analyses of the products they imported during the first six months of 1983. The percentages shown in Exhibit 1 are derived from the weighted averages of the data provided by the importers.

EXHIBIT 1. ALGORITHMS FOR ALLOCATING NGL IMPORTS

PRODUCT SLATE	*Ethane*	*Propane*	*Normal butane*	*Isobutane*	*Pentanes Plus*
Natural Gasoline & Isopentane (EIA-814)					100%
Plant Condensate (EIA-814)					100%
Ethane (IM-145)	100%				
Butane (IM-145)			60%	40%	
Butane-Propane Mixtures (IM-145)		40%	35%	20%	5%
Ethane-Propane Mixtures (IM-145)	80%	20%			

Exports

The export algorithm is based on information gathered from the larger exporters of NGL, who were asked to provide component analyses of the products they exported during 1983. The percentages shown in Exhibit 2 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by PAD of exportation, due to the wide variation of components in the mixed streams.

EXHIBIT 2. ALGORITHMS FOR ALLOCATING NGL EXPORTS

		EIA Component Slate				
PRODUCT	*P.A.D.*	*Ethane*	*Propane*	*Normal Butane*	*Isobutane*	*Pentanes Plus*
Ethane	All	100%				
Propane	All		100%			
Butane	All			100%		
Mixed Streams	I, IV, V		40%	60%		
	II	30%	25%	15%	15%	15%
	III		80%	20%		

☆ U.S. GOVERNMENT PRINTING OFFICE: 1984-421-766:112

LIBRARY U. OF I. URBANA-CHAMPAIGN

DOE F 1340.1
(2-80)

Energy Information Administration

GPO SUBSCRIPTION ORDER FORM

A

(For use in ordering EIA Publications only — Read Ordering Information Section before completing form.)

SEND ORDER FORM TO: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402

Enclosed is $ ____________ ☐ Check

☐ Money order, or charge to my Deposit Account No.

☐☐☐☐☐☐☐ – ☐

Order No. ____________

VISA

MasterCard

Credit Card Orders Only

Total charges $ ____________ Fill in the boxes below

Credit Card No. ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Expiration Date Month/Year ☐☐☐☐ ☐ VISA ☐ Master Card

PLEASE PRINT OR TYPE

NAME AND ADDRESS

NAME – FIRST, LAST

COMPANY NAME OR ADDITIONAL ADDRESS LINE

STREET ADDRESS

CITY **STATE** **ZIP CODE**

(OR COUNTRY)

PRINT OR TYPE TITLES OF ITEMS YOU WISH TO RECEIVE ON A SUBSCRIPTION BASIS:

FOR OFFICE USE ONLY

QUANTITY		CHARGES
....	ENCLOSED	....
....	TO BE MAILED	....
....	SUBSCRIPTIONS	....
	POSTAGE	....
	FOREIGN HANDLING	....
	MMOB	....
	OPNR	....
....	UPNS	
....	DISCOUNT	
....	REFUND	

GPO 882-038

LIBRARY U. OF I. URBANA-CHAMPAIGN

LIBRARY U. OF I. URBANA-CHAMPAIGN.

Energy Information Administration
Forrestal Building
Washington, D.C. 20585

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

FIRST—CLASS MAIL
POSTAGE & FEES PAID
U.S. DEPT. OF ENERGY
PERMIT NO. G 20

FIRST CLASS MAIL

/EIA-0109 (84/04)

Doc.
E3.11/5:
984/4

BOOKSTACKS-
DOCUMENTS

Petroleum
Supply
Monthly

Energy Information Administration
Washington, D.C.

ELECTRONIC AVAILABILITY OF DATA
See Page ii

NEW TABLES NOW IN THE PSM
See Inside Cover

FINAL 1983 STATISTICS
in Summary Section

pril 1984

blished:
ne 1984

Subscription Information

Subscriptions

This publication is available on an annual subscription basis from the Superintendent of Documents, U.S. Government Printing Office (GPO). Prices and ordering information for this and other Energy Information Administration (EIA) publications may be obtained from the GPO or the EIA's National Energy Information Center. Addresses and telephone numbers appear below. An order form is enclosed for your convenience.

National Energy Information Center, EI-20
Energy Information Administration
Room 1F-048, Forrestal Building
Washington, D.C. 20585
(202) 252-8800

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
(202) 783-3238

Information

Questions on energy statistics may be directed to the National Energy Information Center at the address and phone number shown above.

Released for printing: June 22, 1984

NOTICE

This issue of the *Petroleum Supply Monthly* (*PSM*) includes five new recurring tables. Four of the five new tables will supplement previously existing tables by providing year-to-date coverage. The new tables in this category are: Table 17, "Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District"; Table 19, "Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District"; Table 21, "Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District"; and Table 23, "Year-to-Date Exports of Crude Oil and Petroleum Products by Destination."

The fifth new table published for the first time in this issue of the *PSM* is Table 25, "Refinery and Bulk Terminal Stocks of Selected Petroleum Products, by State." The stocks section of this issue provides these data for the current report month (April 1984). In order to provide the reader with a full year's coverage, a supplemental stock section has been added, starting on page 67, which provides data, by month, for January through March 1984. Some State data have been combined with data from other States or have been withheld in order to prevent disclosure of individual company data.

etroleum
upply
lonthly

pril 1984

blished:
ne 1984

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or necessarily reflecting any policy position of the Department of Energy or any other organization.

Energy Information Administration
Washington, D.C. 20585

DOE/EIA-0109 (84/04)
Dist. Category UC-98

DEPOSITORY
JUL 9 1984
UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Energy Information Administration
Electronic Publication System (EPUB)
User Instructions

Selected Weekly Petroleum Status Report (WPSR) and Petroleum Supply Monthly (PSM) statistics are now available electronically on the Energy Information Administration (EIA) Computer Facility. Public access to these machine readable statistics is possible by dialing (202) 252-4964 or (202) 252-4764 for 300 baud or 1200 baud line speeds. Communications are Asynchronous and require a standard ASCII-type terminal. There is no charge for this service. Although there is not a required password, you will be requested to use your telephone number as a user identifier. This service is available from 8 a.m. to 11 p.m. weekdays and 10 a.m. to 6 p.m. on weekends and holidays (Washington, D.C. time). The weekly data will be updated with the current week's statistics by 5 p.m. on Wednesday of each week (Thursday in the event of a holiday). Monthly data for the current available month will be updated by 5 p.m. on the 24th of each month. Questions or comments should be directed to T.C. Swann at (202) 252-1155.

Access Instructions:

1) DIAL (202) 252-4964 or (202) 252-4764

2) HIT RETURN (CARRIAGE RETURN) ONCE TO ESTABLISH BAUD RATE AND TYPE **LOGON** TO LINK TO EIADIAL FOLLOWED BY A SECOND RETURN

```
LOGON
***                                                              ***
***                      WELCOME TO THE                          ***
***             ENERGY INFORMATION ADMINISTRATION                ***
***               ELECTRONIC PUBLICATION SYSTEM                  ***
***                                                              ***
```

3) SELECT THE STATISTICS YOU WISH FROM THE MENU

```
THE FOLLOWING REPORTS ARE AVAILABLE.
     WPSR—WEEKLY PETROLEUM STATUS REPORT
     PSMR—PETROLEUM SUPPLY MONTHLY
PLEASE ENTER THE DESIRED REPORT ID. . .
```

TYPE **WPSR** OR **PSMR**

4) ENTER YOUR 10 DIGIT PHONE NUMBER

```
$WP1081 LOGON IN PROGRESS AT 13:23:22 ON MAY 9, 1984
PLEASE ENTER YOUR PHONE NUMBER. . .
```

5) YOU WILL THEN SEE A BANNER WHICH SHOWS THE REPORT YOU HAVE SELECTED AND PAUSES TO ALLOW AMPLE TIME TO GET READY TO RECEIVE OUTPUT

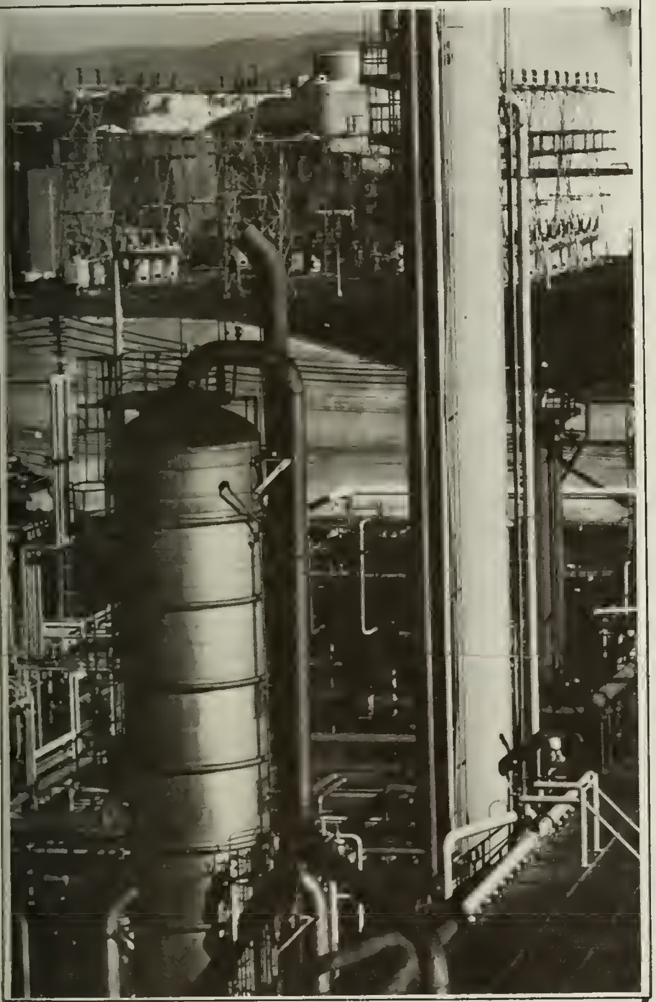
```
YOU HAVE SELECTED WEEKLY STATISTICS FROM THE WEEKLY PETROLEUM
REPORTING SYSTEM. THIS SYSTEM WILL DISPLAY THE LATEST U.S.
PETROLEUM BALANCE SHEET AND THE MOST RECENT 5 WEEKS OF WEEK-
LY PETROLEUM STATUS REPORT DATA. PLEASE TURN ON YOUR PRINTER
NOW IF YOU WISH TO OBTAIN HARD COPY OUTPUT.

                (PRINTING WILL BEGIN IN 20 SECONDS)
```

Contents

This Month in the PSM

This issue of the *Petroleum Supply Monthly* includes five new and recurring tables. These additional tables provide: year-to-date statistics for imports and exports by PAD District (tables 17 and 21, respectively); year-to-date imports and exports by source/destination (tables 19 and 23, respectively); and statistics on refinery and bulk terminal stocks of selected petroleum products, by State (table 25). For this issue only, the new stock table is provided, by month, for January 1984 through April 1984. Successive issues of the *PSM* will provide statistics which cover only the current month. Also, this month's Petroleum Focus Section features "Refinery Capacity Trends and Outlook." This article begins on page xi and focuses on the major developments in the U.S. refining industry during 1983, as well as the outlook for this sector in the near future.



Page

Petroleum Focus

Petroleum Supply Summary ix
Refinery Capacity Trends and Outlook xi

Summary Statistics—through May 1984

Crude Oil and Petroleum Products Overview . . 2
Crude Oil Supply and Disposition 6
Crude Oil and Petroleum Products Imports . . . 8
Finished Motor Gasoline Supply and Disposition 11
Distillate Fuel Oil Supply and Disposition 13
Residual Fuel Oil Supply and Disposition 15
Liquefied Petroleum Gases Supply and Disposition 17
Other Petroleum Products Supply and Disposition 18
Sources 19

Detailed Statistics—April 1984

National Statistics

1. U.S. Petroleum Balance 23
2. Supply and Disposition of Crude Oil and Petroleum Products 24
3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products 25
4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products 26
5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products 27

Supply and Disposition of Crude Oil and Petroleum Products by PAD Districts

6. PAD District I 28
7. PAD District II 29
8. PAD District III 30
9. PAD District IV 31
10. PAD District V 32

Production of Crude Oil and Lease Condensate

11. Production by PAD District and State, February 1984 33

Natural Gas Processing

12. Plant Production of Petroleum Products by PAD Districts 34

Refinery Operations by PAD District

13. Refinery Input of Crude Oil and Petroleum Products 35
14. Refinery Production of Petroleum Products 36
15. Percent Refinery Yield of Petroleum Products 37

Contents (Continued)

Page

Imports and Exports of Crude Oil and Petroleum Products

16. Imports by PAD District 38
17. Year-to-Date Imports by PAD District 39
18. Imports by Source and PAD District 40
19. Year-to-Date Imports by Source and PAD District 44
20. Exports by PAD District 49
21. Year-to-Date Exports by PAD District 50
22. Exports by Destination 51
23. Year-to-Date Exports by Destination 53

Stocks

24. Stocks of Crude Oil and Petroleum Products by PAD District 55
25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State 60

Transportation of Crude Oil and Petroleum Products Between PAD Districts

26. Movements by Pipeline, Tanker, and Barge 61
27. Movements by Pipeline 61
28. Movements by Tanker and Barge 62
29. Net Movements by Pipeline, Tanker, and Barge 63

Heavy Fuel Oils by Sulfur Content

30. Product of Residual Fuel Oil 64
31. Stocks of Residual Fuel Oil 64
32. Movements by Tanker and Barge 64
33. Imports of Residual Fuel Oil by Country of Origin 65
34. Imports of Residual Fuel Oil by State of Entry 66

Stocks (Supplement)

35. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, January 1984 67
36. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, February 1984 68
37. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, March 1984 69

Glossary

Definitions of Petroleum Products and Others Terms 73
Bureau of Mines Petroleum Refining Districts and PAD Districts 79

Maps

PAD Districts 80
Bureau of Mines Refinery Districts 80
District Map, Oil and Gas Division, Railroad Commission of Texas 81

Page

Explanatory Notes

1. Data Collection Methodology 85
   1.1 Weekly Petroleum Supply Reporting System (WPSRS) 85
   1.2 Monthly Petroleum Supply Reporting System (MPSRS) 86
   1.3 Census Import (IM-145) and Export (EM-522 and EM-594) Data 88
2. Supply 89
3. Domestic Crude Oil Production 89
4. Disposition 90
5. Stocks 90
6. Average Stock Levels 90
7. Movements 91
8. Preliminary Monthly Statistics 91
9. Notes on Tables 91
10. New Stock Basis 93
11. Stocks of Alaskan Crude Oil 94
12. Changes in Petroleum Industry Reporting 94
13. NGL Import/Export Algorithm 97

Figures

Petroleum Overview 4
Petroleum Products Supplied 4
Crude Oil Supply and Disposition 5
Crude Oil Ending Stocks 5
Motor Gasoline Supply and Disposition 10
Motor Gasoline Ending Stocks 10
Distillate Fuel Oil Supply and Disposition 12
Distillate Fuel Oil Ending Stocks 12
Residual Fuel Oil Supply and Disposition 14
Residual Fuel Oil Ending Stocks 14
Liquefied Petroleum Gases Supply and Disposition 16
Liquefied Petroleum Gases Ending Stocks 16

Articles

Feature articles on energy-related subjects are frequently included in this publication. The following articles have appeared in previous issues of the *PSM*.

U.S. Petroleum Developments: 1981	Mar 1982
Timeliness and Accuracy of Selected Monthly Petroleum Supply Data	Apr 1982
Focus on Motor Gasoline Statistics	Apr 1982
Focus on Crude Oil Production Data	Apr 1982
Motor Gasoline Outlook: Summer 1982	May 1982
Gasoline Use in the United States	May 1982
The Impact of Changing Vehicle Characteristics and Use on Motor Gasoline Demand	May 1982
1982 EIA Petroleum Refinery Survey Results	Jun 1982
What is a Refinery?	Jun 1982
Mid-year Petroleum Supply Review	Jul 1982
Petroleum Imports and Exports	Aug 1982
Refinery Shutdowns During 1982	Sep 1982
Distillate Fuel Oil Outlook: Winter 1982-83	Sep 1982
Recent Trends in Fuel Oil	Sep 1982
Futures Trading on Heating Oil Markets	Sep 1982
U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1981 Annual Report	Oct 1982
Trends in Domestic Crude Oil Production and Reserves	Nov 1982
Major Energy Companies' Investment and Resource Development Patterns, 1974-80	Nov 1982
U.S. Petroleum Developments: 1982	Jan 1983
Trends in Petroleum Products Consumption, 1971-1982	Jan 1983
Refinery Shutdowns During 1982	Feb 1983
U.S. Petroleum Imports and Exports	Feb 1983
Petroleum Supply Reporting System Overview	Mar 1983
Summer Gasoline Overview	May 1983
Principal Factors Influencing Motor Gasoline Demand	May 1983
U.S. Petroleum Refinery Trends and Outlook	Jun 1983
Mid-Year Petroleum Review	Jul 1983
Timeliness and Accuracy of Selected Petroleum Supply Data Series	Aug 1983
Distillate Fuel Oil Overview: Winter 1983-84	Sep 1983
Fuel Oil Trends	Sep 1983
U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves	Sep 1983
LPG Market Trends	Nov 1983
National Petroleum Council Revises Minimum Operating Inventory Estimates	Dec(1) 1983
U.S. Petroleum Developments: 1983	Dec(2) 1983
An Overview of Petroleum Transportation	Dec(3) 1983
EIA Revises Petroleum Supply Reporting System	Jan 1984
Trends in Petroleum Product Consumption	Jan 1984
Petroleum Consumption in the Industrial Sector	Jan 1984
Motor Gasoline Outlook for Summer 1984	Feb 1984
Recent Motor Gasoline Trends	Feb 1984
New Patterns Emerging in U.S. Petroleum Imports and Exports	Feb 1984

LIBRARY U. OF I. URBANA-CHAMPAIGN

LIBRARY U. OF I. URBANA-CHAMPAIGN

Petroleum Focus

LIBRARY U. OF I. URBANA-CHAMPAIGN

Petroleum Supply Summary

	May			Cumulative January Through May		
Average Volume for Period (Million Barrels Per Day)	**1984**	**1983**	**% Change**	**1984**	**1983**	**% Change**
Products Supplied						
Motor Gasoline	7.0	6.6	5.4	6.5	6.4	2.2
Distillate Fuel Oil	2.8	2.4	19.0	3.1	2.7	13.0
Residual Fuel Oil	1.2	1.3	– 11.5	1.6	1.5	3.7
Other Products	4.5	4.2	6.9	4.7	4.2	9.9
Total	15.4	14.5	6.5	15.8	14.9	6.5
Crude Inputs to Refineries	12.3	11.8	4.6	12.0	11.2	7.0
Production						
Crude Oil, Natural Gas Liquids, and Other[1]	10.4	10.2	2.2	10.4	10.3	0.6
Imports						
Crude Oil[2]	3.6	3.1	17.5	3.2	2.6	22.8
SPR	0.2	0.3	– 31.5	0.2	0.2	– 27.8
Products	1.7	1.7	– 2.4	2.1	1.5	35.0
Total	5.5	5.1	7.9	5.4	4.3	24.5
Exports						
Crude Oil	0.2	0.3	– 38.6	0.2	0.2	0.5
Products	0.5	0.6	– 15.0	0.5	0.7	– 29.1
Total	0.7	0.8	– 22.8	0.7	0.9	– 22.9
Stock Withdrawal						
Crude Oil[2]	– 0.5	0.3	—	– 0.1	(s)	—
Products	– 0.3	– 0.6	—	(s)	0.7	—
Stocks at End of Period (Million Barrels)						
Crude Oil						
SPR	403	327	23.3			
Other	361	353	2.5			
Total	764	679	12.5			
Products						
Motor Gasoline[3]	248	223	11.2			
Distillate Fuel Oil	99	109	– 8.8			
Residual Fuel Oil	44	51	– 13.7			
Other	330	331	– 0.4			
Total	721	714	1.0			
Total Crude Oil and Products	1,485	1,394	6.6			

---

[1] Includes alcohol and other hydrocarbon liquids.

[2] Excludes Strategic Petroleum Reserve (SPR).

[3] Including blending components.

(s) = Less than 0.05 million barrels per day.

NOTE: Percent changes are based on unrounded values. May 1984 data are estimates based on weekly data, except for exports, NGL production, other hydrocarbons, and alcohol which are April 1984 monthly values. Totals may not be equal to sum of components due to independent rounding.

Source: Energy Information Administration, *Petroleum Supply Monthly*, April 1984.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Refinery Capacity Trends and Outlook

The domestic refining industry is undergoing long-term adjustments in response to the slowdown in product demand, a shift in the desired product mix, the declining quality of crude oil supplies, and changes in Federal regulations. This article focuses on changes in refining capacity that occurred during 1983, and on projections for the refining industry. Highlights of the major 1983 developments are:

- Refinery shutdowns continued in 1983, but at a slower pace than in 1982.
- Crude oil distillation capacity decreased for the third consecutive year, but downstream charge capacity increased, a reversal from last year's decline.
- Major changes in refinery ownership continued.

Refinery Closures Decrease

There were 247 operable petroleum refineries in the United States[1] on January 1, 1984. This represented a net decrease of 11 refineries and a net loss of approximately 0.7 million barrels per calendar day of crude oil distillation capacity during 1983, as 18 refineries were closed and 7 were reactivated. This was a significant reduction in refinery closings compared to the net decreases of 43 and 23 during 1982 and 1981, respectively.

Of the 18 refineries shut down during 1983, the largest was the 15-year-old GHR Energy Corporation refinery in Good Hope, Louisiana, which had a crude oil distillation capacity of 0.3 million barrels per calendar day and 0.4 million barrels per stream day of downstream charge capacity.[2] The largest number of refinery shutdowns occurred in Petroleum Administration for Defense (PAD) District III (Gulf). This region lost 10 refineries, with a combined crude oil distillation capacity of nearly 0.5 million barrels per calendar day. The second largest drop occurred in PAD District II (Midwest) as three refineries were shut down, resulting in a loss of approximately 0.1 million barrels per calendar day of crude oil distillation capacity.

The seven refineries reactivated during 1983 had a combined crude oil distillation capacity of nearly 0.1 million barrels per calendar day. Over 58 percent of this capacity is located in PAD District II (Midwest) and approximately 34 percent is located in PAD District V (West Coast). The largest refinery reactivation occurred at the Sinclair Oil Corporation's refinery in West Tulsa, Oklahoma, as 0.05 million barrels per calendar day of crude oil distillation capacity was returned to operable status.

Note: The information in this article is based on data contained in the Energy Information Administration's 1983 *Petroleum Supply Annual*, Volume 1, DOE/EIA-0340, and predecessor reports. Projections are based on the *Annual Energy Outlook 1983*, DOE/EIA-0383(83) and on company submissions to EIA's Annual Refinery Report.

The net reduction during 1983 in the number of operable refineries occurred predominantly among refineries with crude oil distillation capacity of 30,000 barrels per day or less. This same category has dropped by 67 refineries since 1980, while the number of refineries with more than 30,000 barrels per calendar day of distillation capacity only had a net decrease of 5 refineries (see Table 1). Net changes in crude oil distillation and downstream charge capacity are discussed in the following section.

Table 1. Number of Operable Refineries by Size, 1980-1984

Crude Oil Distillation Capacity (B/CD)	As of January 1 1984	1983	1982	1981	1980
Less than 10,000	63	67	82	91	102
10,001-30,000	55	59	80	93	83
30,001-50,000	41	40	44	42	39
50,001-100,000	41	44	43	44	44
100,001-175,000	26	26	30	27	25
Over 175,000	21	22	22	27	26
Total	247	258	301	324	319

B/CD = Barrels per calendar day.
Source: Form EIA-820

Changes in Refining Capacity

Recent changes have provided the petroleum refining industry with more flexibility to process crude oils with a wide range of qualities and to vary the product mix.

Also, despite continued refinery closings, the refining industry has considerable unused crude oil distillation capacity. Together with increased downstream charge capacity, this unused distillation capacity allows refiners the option of processing larger quantities of imported crude oil as an alternative to increasing imports of finished products to meet an increasing product demand.

Crude Oil Distillation Capacity

The 247 operable petroleum refineries in the United States on January 1, 1984, had a combined operable crude oil distillation capacity of 16.1 million barrels per calendar day, approximately 0.7 million barrels per calendar day less than a year earlier. The 18 refinery closings and 7 reactivations accounted for approximately 0.6 million barrels per calendar day of this decrease in crude oil distillation capacity. Downgrading of processing unit capacity ratings and partial shutdowns, where refiners closed only a portion of their plant, accounted for the remaining portion of the decrease (approximately 0.1 million barrels per calendar day).

---

[1] The 50 United States and District of Columbia, excluding U.S. territories and possessions.

[2] See Glossary for definitions of "calendar day" and "stream day."

In terms of the adequacy of available crude oil refining capacity, there is ample distillation capacity for the next few years. Although EIA projects that U.S. refinery runs of crude oil will increase by over a million barrels per day by 1990, this is well within current capacity. During 1983 the average utilization rate was approximately 72 percent, as gross input to crude distillation units averaged 11.9 million barrels per day. Increasing input by 1 million barrels per day would bring the utilization rate (based on the projected January 1, 1985, capacity level) to approximately 80 percent. This utilization rate is considerably lower than utilization rates experienced in the 1970's and is well within the reach of the U.S. refining industry, given available feedstock.

Downstream Charge Capacity

Total U.S. downstream charge capacity increased by more than 0.7 million barrels per stream day during 1983. Approximately 1.4 million barrels per stream day of capacity was added through reactivations or construction completed during the year. These additions more than offset the loss of nearly 0.7 million barrels per day of downstream capacity that resulted from the net decrease of 11 refineries in 1983. The net increase in downstream capacity during 1983 contrasts sharply with the net decrease of about 0.5 million barrels per stream day during 1982.

The most significant change in downstream processes during 1983 occurred in catalytic hydrotreating, which increased by more than 0.6 million barrels per stream day and accounted for more than 87 percent of the total net increase in downstream units (see Table 2). The increase in catalytic hydrotreating capacity (a process to upgrade crude oil and products) reflects additional flexibility to remove metals, sulfur and other contaminants. Other downstream units which contributed to the net increase during 1983 were thermal operations (processes to handle very heavy feedstocks) and catalytic hydrocracking (a process which produces high grade motor gasoline). Thermal operations units increased by more than 0.1 million barrels per stream day, while catalytic hydrocracking units increased by nearly 0.1 million barrels per stream day.

Major factors influencing refiners' decisions to add th downstream capacity that became operational in 198 included:

- The price differential between low quality, heavy high sulfur crude oils and high quality, light, lo sulfur crude oils in the early 1980's which led refiners to invest in equipment to "crack" heavy crude oils and the residual produced from atmospheric distillation units.
- The perception that the Organization of Petroleum Exporting Countries (OPEC) could be an uncertain source of low sulfur/light, as well as medium sulfur/medium weight, crude oils.
- Refiners' expectation that the demand shift toward lighter products would continue.
- The requirement to upgrade the qualities of gasoline and distillate fuel oil. As the use of lead additives for octane boosting is phased down, more high octane petroleum-based gasoline components will be needed. In addition, the increased use of distillate fuel oil as a transportation fuel, particularly for lighter trucks, will require increasing attention to the cetane ratings of distillate fuel oil production.

Refinery Ownership Changes

Between 1981 and 1983, several significant sales occurred in the petroleum industry. In September 1981, E.I. du Pont de Nemours and Company acquired Conoco. This purchase included Conoco's eight refineries, whose combined crude oil capacity was nearly 0.5 million barrels per calendar day. In January 1982, U.S. Steel acquired Marathon Oil Company's four refineries, whose combined crude oil capacity was rated at nearly 0.6 million barrels per calendar day. Another significant sale occurred in January 1983, when Cities Service Company's 0.3 million barrel-per-calendar-day refinery in Lake Charles, Louisiana, was acquired by Occidental Petroleum. This refinery, was subsequently sold to Southland Corporation in September 1983. For a more detailed look at the largest refinery ownership changes that took place between January 1981 and December 1983, see insert on next page.

Table 2. Changes in Operable Capacity of Petroleum Refineries, 1982-1985 (Thousand Barrels Per Stream Day, except where noted)

Date	Crude Oil Distillation (Thousand Barrels Per Calendar Day)	Downstream Charge Capacity						
		Vacuum Distillation	Thermal Operations	Catalytic Cracking (Fresh)	Catalytic Cracking (Recycle)	Catalytic Reforming	Catalytic Hydrocracking	Catalytic Hydrotreating
As of Jan. 1, 1982	17,890	7,197	1,782	5,474	562	3,966	892	8,539
As of Jan. 1, 1983	16,859	7,180	1,715	5,402	488	3,918	883	8,354
Net Change - 1982	– 1,031	– 17	– 67	– 72	– 74	– 48	– 9	– 185
As of Jan. 1, 1984	16,137	7,165	1,852	5,310	492	3,907	952	9,009
Net Change - 1983	– 722	– 15	+ 137	– 92	+ 4	– 11	+ 69	+ 655
As of Jan. 1, 1985	E16,262	7,244	1,896	5,378	492	3,890	1,020	9,063
Projected Net Change - 1984	E + 125	+ 79	+ 44	+ 68	0	– 17	+ 68	+ 54

E = Estimated based on 1984 calendar day/stream day ratio applied to reported 1985 stream day
Source: Form EIA-820.

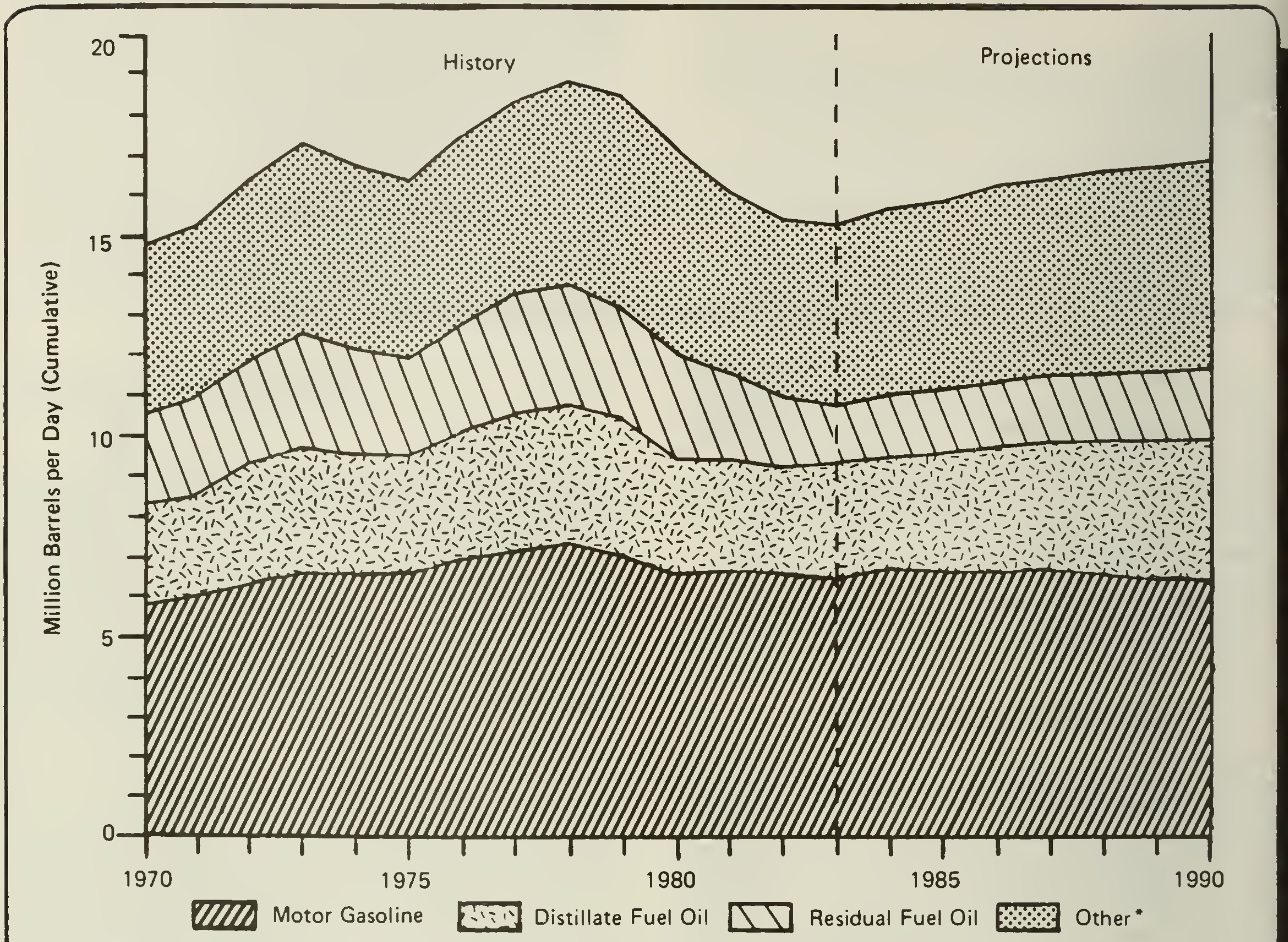
Outlook

Total U.S. energy use has declined in each year since 1979. Last year, petroleum consumption reached its lowest point since 1971. Also, oil imports fell to their lowest point in 12 years. According to EIA's *Annual Energy Outlook 1983*, U.S. crude oil production is expected to remain stable in the near term. As a result, any rise in petroleum consumption would increase oil imports. However, petroleum demand is expected to

Largest Refinery Ownership Changes Between 1981 and 1983

Former Owner and Refinery Location	Total Crude Oil Distillation Capacity (Barrels per Calendar Day)	New Owner	Date of Sale
United Refining Co.		Coral Petroleum, Inc.	3/81
Warren, Pennsylvania	60,000		
Clark Oil & Refining Corp.		Apex Oil Co.	9/81
Blue Island, Illinois	66,500		
Hartford (Wood River), Illinois	63,600		
Total	130,100		
Monsanto Co.		Conoco, Inc.	9/81
Alvin/Texas City, Texas	37,194		
Conoco, Inc.		E. I. du Pont de Nemours & Co.	9/81
West Lake, Louisiana	156,500		
Ponca City, Oklahoma	133,700		
Billings, Montana	52,500		
Paramount, California	46,500		
Alvin/Texas City, Texas	37,194		
Denver, Colorado	32,500		
Santa Maria, California	9,500		
Egan, Louisiana	6,500		
Total	474,894		
Mt. Airy Refining Co.		Apex Oil Co.	9/81
Mt. Airy, Louisiana	23,000		
Sun Co., Inc.		Koch Industries, Inc.	11/81
Corpus Christi, Texas	57,000		
Marathon Oil Co.		U. S. Steel Corp.	1/82
Robinson, Illinois	195,000		
Detroit, Michigan	68,500		
Texas City, Texas	69,500		
Garyville, Louisiana	255,000		
Total	588,000		
Earth Resources Co.		Mid-America Pipeline Systems	5/82
Memphis, Tennessee	49,500		
North Pole, Alaska	45,323		
Total	94,823		
Cities Service Co.		Occidental Petroleum	1/83
Lake Charles, Louisiana	320,000		
E.I. du Pont Nemours & Co.		Pacific-Oasis Corp.	1/83
Paramount, California	46,500		
Gulf Oil Corp.		Thrifty Oil Co.	8/83
Santa Fe Springs, California	51,500		
Occidental Petroleum		Southland Corp.	9/83
Lake Charles, Louisiana	320,000		
Texaco, Inc.		Sinclair Oil Corp.	11/83
Sinclair, Wyoming	50,000		

Figure 1. Demand for Petroleum Products, Midprice Scenario, 1970 to 1990



*Includes liquefied petroleum gases, petrochemical feedstocks, ethane, natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products not shown explicity.

Source: Energy Information Administration, "Petroleum Supply Annual," Volume 1, (DOE/EIA-0340) and predecessor reports; "Annual Energy Outlook 1983," DOE/EIA-0383(83).

grow less rapidly than overall energy demand, and oil imports are expected to remain below peak levels of the late 1970's.

Petroleum demand in the late 1970's and early 1980's shifted toward lighter, gasoline-type products and away from heavier products such as residual fuel oil. EIA's latest projections indicate an increase in the relative demand for heavier fuel oils for industrial and electric utility use through the remainder of the decade and into the early 1990's. Overall growth in transportation fuel consumption is expected, largely for diesel fuel, while gasoline consumption is expected to decline (see Figure 1).

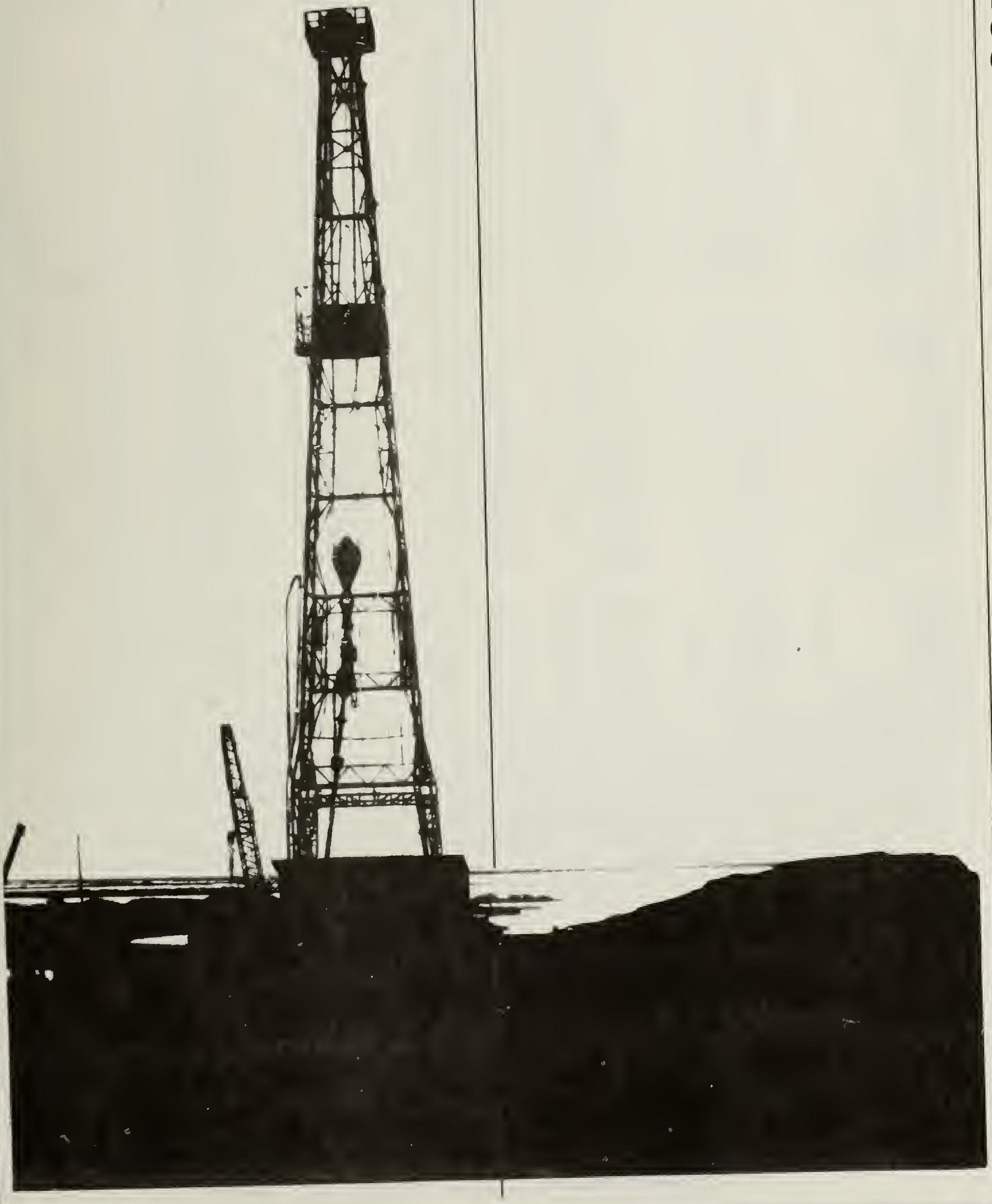
Even after 3 years of decline, there is ample crude oil distillation capacity to meet current domestic demand. The present level of operable crude oil distillation capacity is sufficient to meet expected demands for the short term, assuming that imports continue to satisfy a relatively constant portion of demand. Only evolutionary changes in refinery configurations are expected for the next few years, as refiners continue to increase their flexibility in responding to changing demand patterns and in processing a wide range of crude oil types.

Based on company submissions to the Energy Information Administration's annual refinery survey, the level of crude oil distillation capacity is projected to increase approximately 0.1 million barrels per calendar day between January 1, 1984 and January 1, 1985. If this projection holds true, it will be the first annual increase since the decline in this series started in 1981.

Respondents to Form EIA-820, "Annual Refinery Report," also project increases of nearly 0.3 million barrels per stream day to downstream processing units during 1984. On a unit-by-unit basis, these projected increases represent a modest gain when compared to the increases that took place during 1983. Moreover, in contrast with the 1983 increases, over 80 percent of the projected 1984 increases are in units designed to produce finished products from raw material feedstocks.

Summary Statistics

1983 Statistics Contained In This Section Are Final. They have been extracted from the Petroleum Supply Annual which was released June 8, 1984.



Crude Oil[1] and Petroleum Products Overview

		Field Production			Stock Withdrawal[2]			Ending Stocks[3]
		Total Domestic[4]	Crude Oil	Natural Gas Plant Production	Crude Oil[5]	Petroleum Products	Petroleum Products Supplied	Crude Oil[5] and Petroleum Products
		Thousand Barrels per Day						Million Barrels
1973	**AVERAGE**	**10,975**	**9,208**	**1,738**	**11**	**-146**	**17,308**	**1,008**
1974	**AVERAGE**	**10,498**	**8,774**	**1,688**	**-62**	**-117**	**16,653**	[8] **1,074**
1975	**AVERAGE**	**10,045**	**8,375**	**1,633**	[8] **-17**	[8] **-145**	**16,322**	**1,133**
1976	**AVERAGE**	**9,774**	**8,132**	**1,603**	**-39**	**96**	**17,461**	**1,112**
1977	**AVERAGE**	**9,913**	**8,245**	**1,618**	**-170**	**-378**	**18,431**	**1,312**
1978	**AVERAGE**	**10,328**	**8,707**	**1,567**	**-78**	**172**	**18,847**	**1,278**
1979	**AVERAGE**	**10,179**	**8,552**	**1,584**	**-148**	**-25**	**18,513**	**1,341**
1980	**AVERAGE**	**10,214**	**8,597**	**1,573**	**-98**	**-42**	**17,056**	[8] **1,392**
1981	**AVERAGE**	**10,230**	**8,572**	**1,609**	[8] **-290**	[8] **130**	**16,058**	**1,484**
1982	January	10,128	8,509	1,578	-401	1,298	16,124	1,456
	February	10,312	8,702	1,563	-242	1,230	16,001	1,428
	March	10,284	8,667	1,572	121	1,047	15,560	1,392
	April	10,188	8,591	1,542	-37	1,583	16,046	1,346
	May	10,244	8,683	1,518	29	-66	14,847	1,347
	June	10,212	8,646	1,511	40	-489	14,998	1,360
	July	10,229	8,658	1,513	-147	-926	14,821	1,393
	August	10,215	8,634	1,524	-440	-44	14,839	1,408
	September	10,279	8,701	1,518	263	-447	15,022	1,414
	October	10,299	8,701	1,530	-548	-47	14,859	1,432
	November	10,359	8,697	1,609	-398	-361	15,009	1,455
	December	10,276	8,598	1,628	128	688	15,487	[8] 1,430
	AVERAGE	**10,252**	**8,649**	**1,550**	**-136**	**283**	**15,296**	
1983	January	10,331	8,697	1,580	[8] -499	[8] 772	14,722	1,452
	February	10,388	8,758	1,575	-320	1,113	14,792	1,430
	March	10,279	8,700	1,541	83	1,810	15,541	1,372
	April	10,322	8,776	1,506	-402	308	14,692	1,374
	May	10,190	8,631	1,493	-15	-602	14,505	1,394
	June	10,261	8,667	1,523	-122	-276	15,289	1,405
	July	10,228	8,636	1,539	233	-909	15,019	1,426
	August	10,284	8,679	1,562	-796	-271	15,480	1,460
	September	10,447	8,784	1,602	-239	-621	15,506	1,485
	October	10,434	8,771	1,604	-274	-442	14,962	1,508
	November	10,461	8,770	1,641	114	-182	15,500	1,510
	December	9,983	8,397	1,544	-329	2,133	16,726	1,454
	AVERAGE	**10,299**	**8,688**	**1,559**	**-214**	**234**	**15,231**	
1984	January	10,282	8,659	1,585	-342	1,085	16,726	1,430
	February	10,410	8,726	1,629	186	-1,353	15,389	1,464
	March	10,354	8,718	1,588	-2	643	16,017	1,444
	April*	10,347	8,688	1,616	R -565	R -128	R 15,484	R 1,465
	May**	NA	8,753	NA	*-709*	*-346*	*15,446*	*1,485*
	AVERAGE	**NA**	**8,708**	**NA**	**-291**	**-1**	**15,820**	

---

[1] Includes lease condensate.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] Stocks are totals as of end of period.

[4] Includes crude oil, natural gas plant production, other hydrocarbons, and alcohol.

[5] Includes stocks located in the Strategic Petroleum Reserve.

[6] Includes crude oil for storage in the Strategic Petroleum Reserve.

[7] Net Imports equal Imports minus Exports.

[8] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

Footnotes continued on following page.

Crude Oil[1] and Petroleum Products Overview (continued)

	Imports			Exports			
	Total	Crude Oil[6]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net[7] Imports
	Thousand Barrels per Day						
1973 AVERAGE	**6,256**	**3,244**	**3,012**	**231**	**2**	**229**	**6,025**
1974 AVERAGE	**6,112**	**3,477**	**2,635**	**221**	**3**	**218**	**5,892**
1975 AVERAGE	**6,056**	**4,105**	**1,951**	**209**	**6**	**204**	**5,846**
1976 AVERAGE	**7,313**	**5,287**	**2,026**	**223**	**8**	**215**	**7,090**
1977 AVERAGE	**8,807**	**6,615**	**2,193**	**243**	**50**	**193**	**8,565**
1978 AVERAGE	**8,363**	**6,356**	**2,008**	**362**	**158**	**204**	**8,002**
1979 AVERAGE	**8,456**	**6,519**	**1,937**	**472**	**235**	**237**	**7,984**
1980 AVERAGE	**6,909**	**5,263**	**1,646**	**544**	**287**	**258**	**6,365**
1981 AVERAGE	**5,996**	**4,396**	**1,599**	**595**	**228**	**367**	**5,401**
1982 January	5,332	3,693	1,639	829	238	591	4,503
February	4,807	2,990	1,817	804	304	499	4,003
March	4,484	2,874	1,610	882	321	561	3,602
April	4,378	2,849	1,529	786	174	611	3,593
May	4,811	3,309	1,503	803	262	542	4,008
June	5,327	3,836	1,491	703	94	609	4,624
July	5,890	4,248	1,642	741	229	512	5,149
August	5,244	3,851	1,392	858	304	554	4,386
September	5,414	3,636	1,778	791	184	606	4,624
October	5,306	3,670	1,636	932	270	662	4,374
November	5,744	3,862	1,882	786	262	524	4,958
December	4,606	3,000	1,605	860	193	667	3,746
AVERAGE	**5,113**	**3,488**	**1,625**	**815**	**236**	**579**	**4,298**
1983 January	4,438	2,964	1,474	973	117	856	3,464
February	3,726	2,267	1,459	865	262	603	2,861
March	3,690	2,290	1,400	801	174	627	2,889
April	4,727	3,118	1,609	809	88	721	3,918
May	5,089	3,360	1,729	848	280	568	4,241
June	5,326	3,577	1,749	774	144	630	4,552
July	5,741	3,871	1,870	571	145	426	5,170
August	6,159	4,227	1,933	663	172	491	5,496
September	6,129	4,210	1,919	684	177	507	5,445
October	5,258	3,446	1,812	576	140	436	4,682
November	5,210	3,337	1,873	679	186	494	4,531
December	5,033	3,213	1,820	639	95	544	4,394
AVERAGE	**5,051**	**3,329**	**1,722**	**739**	**164**	**575**	**4,312**
1984 January	5,347	3,029	2,318	575	153	422	4,772
February	5,643	2,952	2,691	582	185	397	5,061
March	5,253	3,455	1,798	840	236	605	4,413
April*	R 5,319	R 3,417	R 1,902	655	172	483	4,664
May**	*5,493*	*3,805*	*1,688*	NA	NA	NA	NA
AVERAGE	**5,408**	**3,336**	**2,072**	**NA**	**NA**	**NA**	**NA**

Footnotes continued.

* See Explanatory Note 9.1.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available.

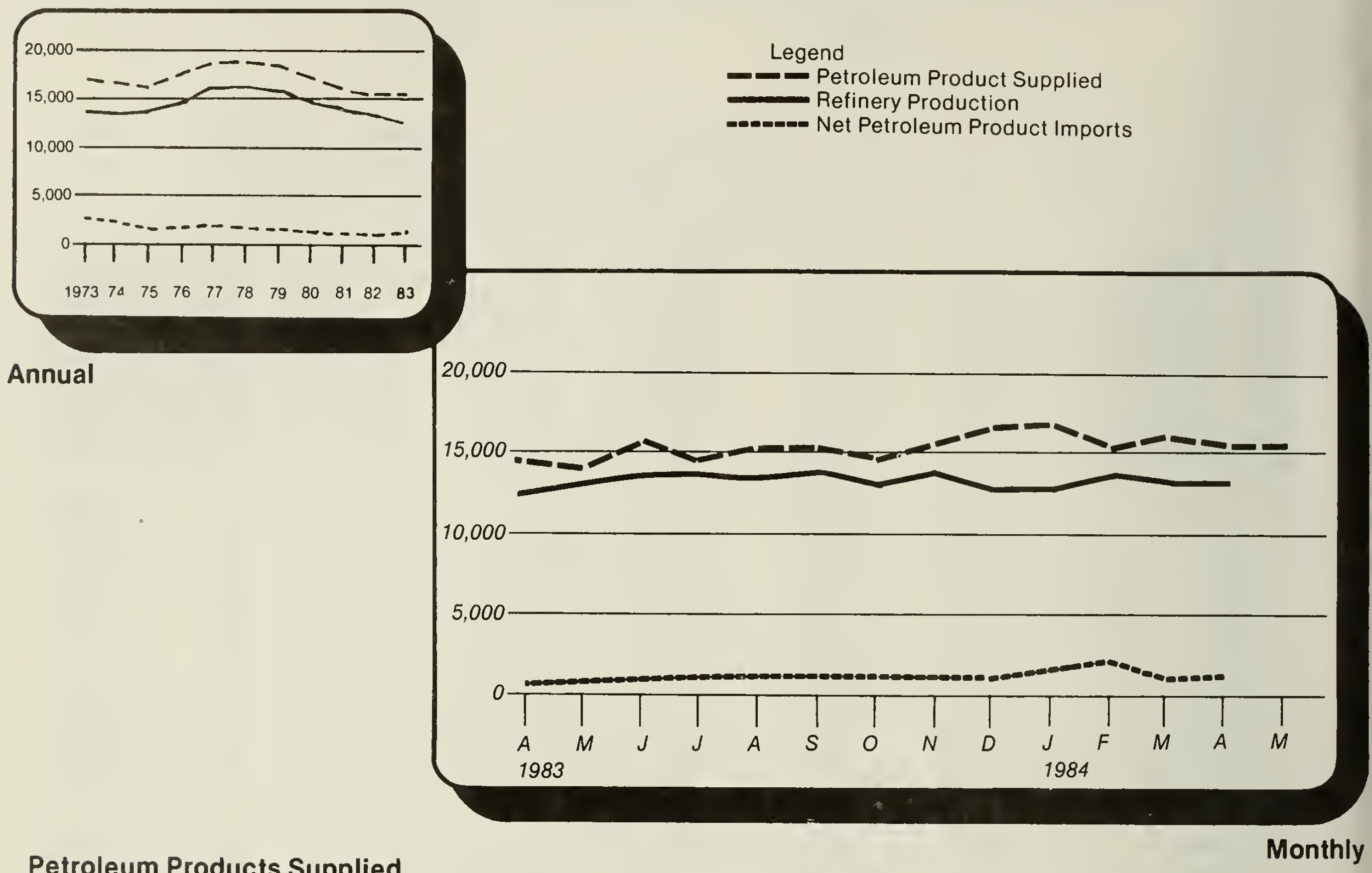
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

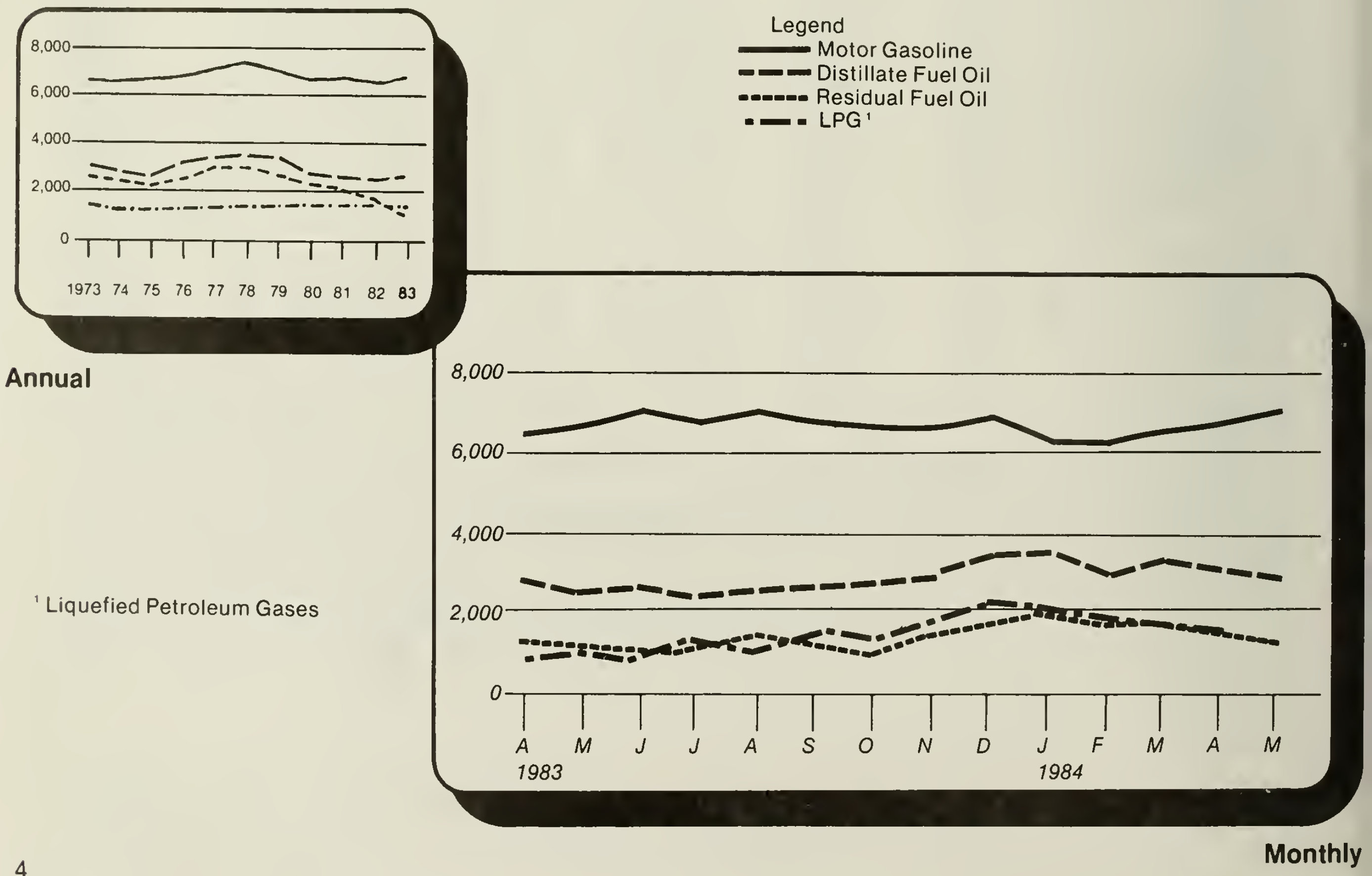
Petroleum Overview

(Thousand Barrels Per Day)



Petroleum Products Supplied

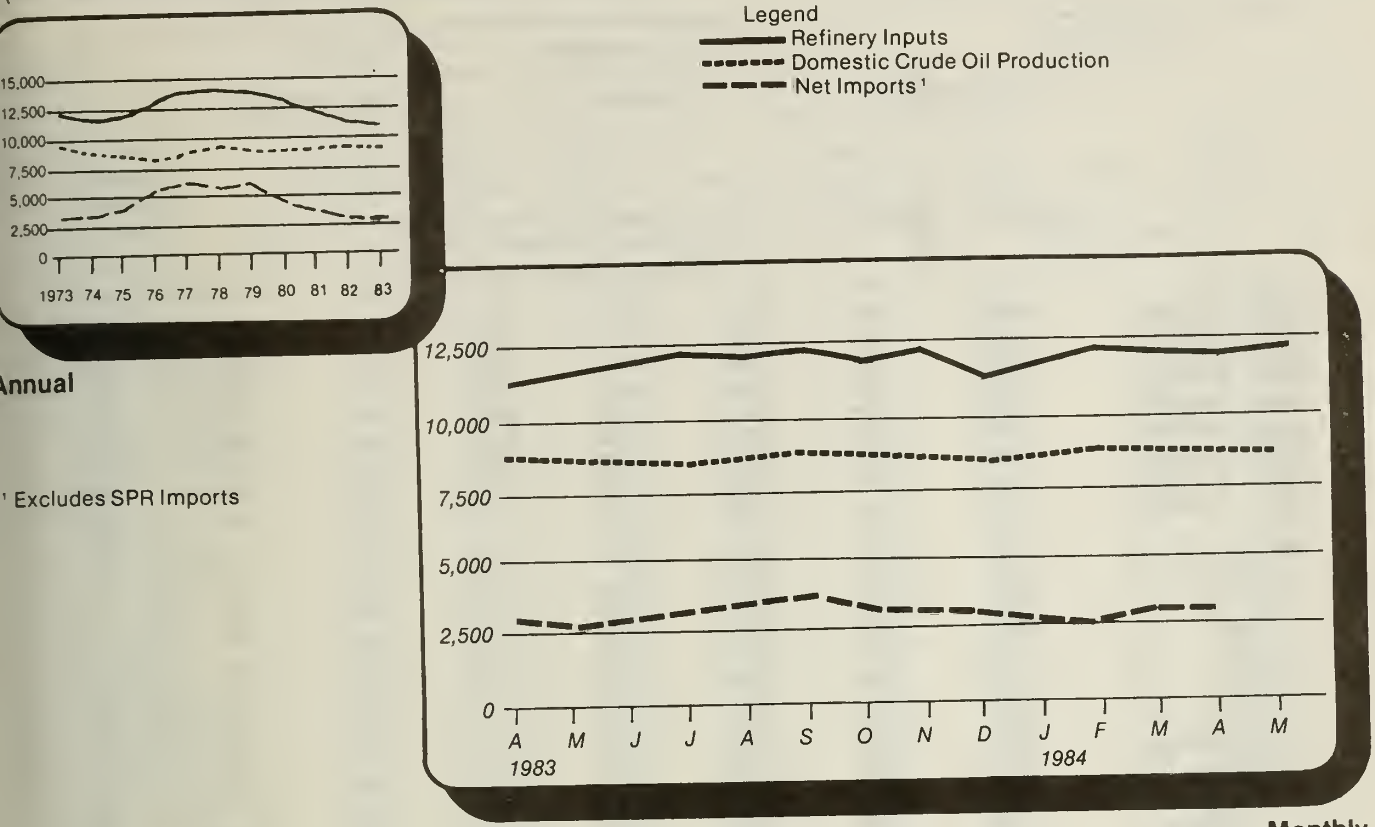
(Thousand Barrels Per Day)



[1] Liquefied Petroleum Gases

Crude Oil Supply and Disposition

(Thousand Barrels Per Day)



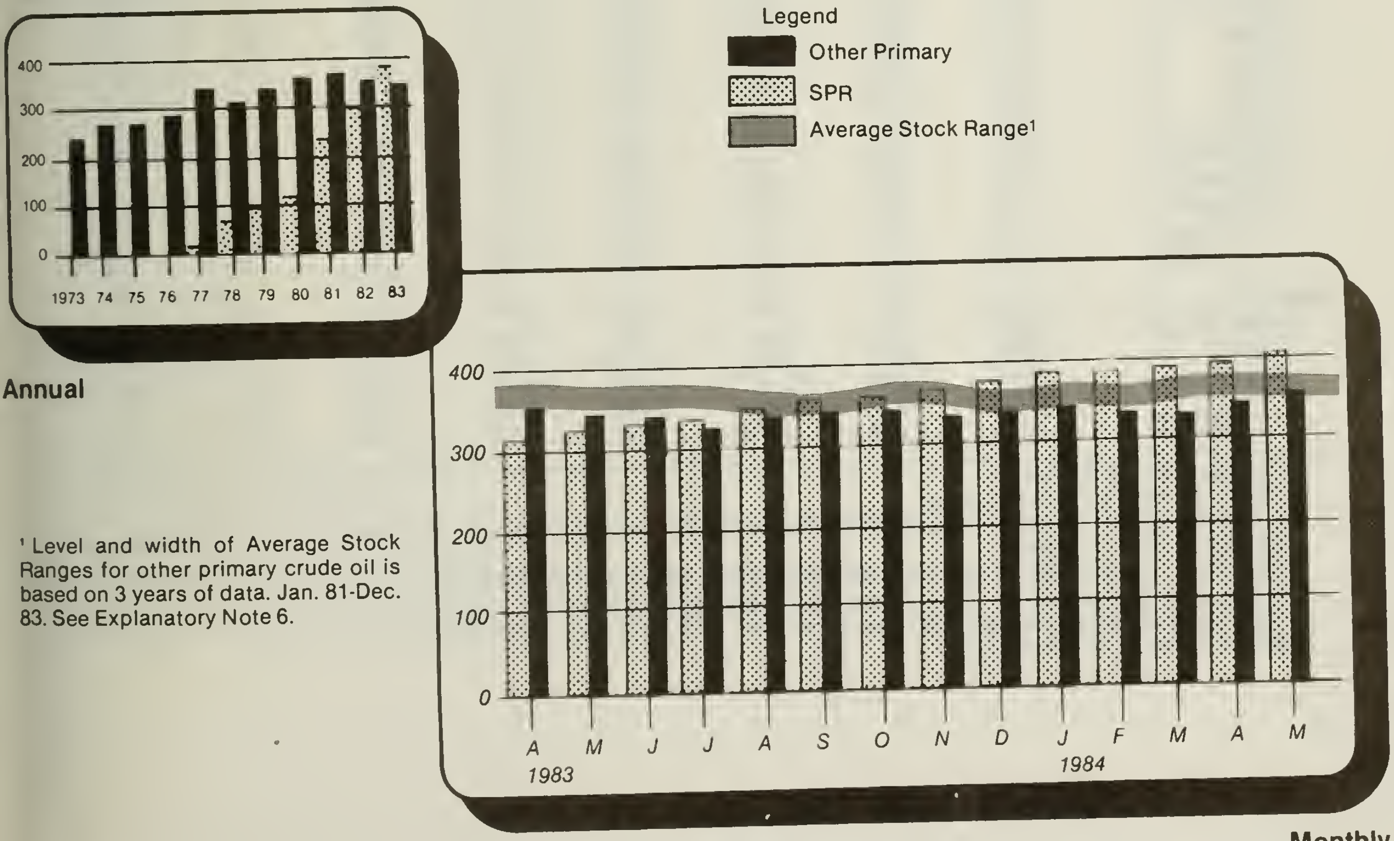
Annual

Monthly

[1] Excludes SPR Imports

Crude Oil Ending Stocks

(Million Barrels)



Annual

Monthly

[1] Level and width of Average Stock Ranges for other primary crude oil is based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

Crude Oil[1] Supply and Disposition

	Supply							
	Field Production		Imports			Stock Withdrawal[3]		
	Total Domestic	Alaskan	Total	SPR[4]	Other	SPR[4]	Other	Unaccounted for Crude Oil
	Thousand Barrels per Day							
1973 AVERAGE	**9,208**	**198**	**3,244**		**3,244**		**11**	**3**
1974 AVERAGE	**8,774**	**193**	**3,477**		**3,477**		**-62**	**-25**
1975 AVERAGE	**8,375**	**191**	**4,105**		**4,105**		**-17**	**17**
1976 AVERAGE	**8,132**	**173**	**5,287**		**5,287**		**-39**	**77**
1977 AVERAGE	**8,245**	**464**	**6,615**	**21**	**6,594**	**-20**	**-150**	**-6**
1978 AVERAGE	**8,707**	**1,229**	**6,356**	**162**	**6,195**	**-163**	**84**	**-57**
1979 AVERAGE	**8,552**	**1,401**	**6,519**	**67**	**6,452**	**-67**	**-81**	**-11**
1980 AVERAGE	**8,597**	**1,617**	**5,263**	**44**	**5,219**	**-45**	**-52**	**34**
1981 AVERAGE	**8,572**	**1,609**	**4,396**	**256**	**4,141**	**-336**	**[6] 46**	**83**
1982 January	8,509	1,705	3,693	170	3,523	-159	-242	101
February	8,702	1,707	2,990	159	2,830	-213	-29	156
March	8,667	1,696	2,874	185	2,689	-235	357	2
April	8,591	1,691	2,849	190	2,659	-233	196	231
May	8,683	1,707	3,309	204	3,105	-176	205	111
June	8,646	1,665	3,836	105	3,732	-105	144	133
July	8,658	1,710	4,248	97	4,150	-97	-50	-20
August	8,634	1,697	3,851	208	3,643	-208	-232	189
September	8,701	1,705	3,636	139	3,497	-143	406	-210
October	8,701	1,706	3,670	216	3,454	-216	-332	249
November	8,697	1,676	3,862	180	3,683	-179	-219	-124
December	8,598	1,682	3,000	124	2,877	-125	252	35
AVERAGE	**8,649**	**1,696**	**3,488**	**165**	**3,323**	**-174**	**38**	**71**
1983 January	8,697	1,732	2,964	219	2,746	-219	[6] -280	170
February	8,758	1,717	2,267	197	2,070	-197	-123	262
March	8,700	1,732	2,290	201	2,089	-184	267	31
April	8,776	1,721	3,118	205	2,913	-197	-205	98
May	8,631	1,662	3,360	289	3,071	-293	278	169
June	8,667	1,687	3,577	190	3,387	-188	66	370
July	8,636	1,715	3,871	274	3,597	-264	497	-167
August	8,679	1,697	4,227	350	3,876	-358	-438	281
September	8,784	1,738	4,210	309	3,901	-307	68	-30
October	8,771	1,733	3,446	202	3,244	-201	-73	44
November	8,770	1,720	3,337	171	3,166	-135	250	34
December	8,397	1,711	3,213	193	3,020	-252	-78	117
AVERAGE	**8,688**	**1,714**	**3,329**	**234**	**3,096**	**-234**	**20**	**114**
1984 January	8,659	1,741	3,029	200	2,829	-173	-169	451
February	8,726	1,740	2,952	85	2,868	-96	282	487
March	8,718	1,740	3,455	148	3,307	-147	145	66
April*	8,688	1,725	R 3,417	R 170	R 3,247	R -170	R -396	590
May**	8,753	1,793	*3,805*	*198*	*3,607*	*-199*	*-511*	NA
AVERAGE	**8,708**	**1,748**	**3,336**	**161**	**3,175**	**-158**	**-133**	**NA**

---

[1] Includes lease condensate.

[2] Stocks are totals as of end of period.

[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[4] Strategic Petroleum Reserve.

[5] Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.

[6] Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels. See Explanatory Notes 10 and 11.

Footnotes continued on following page.

Crude Oil[1] Supply and Disposition (continued)

	Supply	Disposition				Ending Stocks[2]		
	Crude Used Directly[5]	Crude Losses	Refinery Inputs	Exports	Products Supplied[5]	Total Crude Oil	SPR[4]	Other Primary
	Thousand Barrels per Day					Million Barrels		
1973 AVERAGE	**-19**	**13**	**12,431**	**2**	**NA**	**242**		**242**
1974 AVERAGE	**-15**	**13**	**12,133**	**3**	**NA**	**265**		**265**
1975 AVERAGE	**-17**	**13**	**12,442**	**6**	**NA**	**271**		**271**
1976 AVERAGE	**-18**	**15**	**13,416**	**8**	**NA**	**285**		**285**
1977 AVERAGE	**-14**	**16**	**14,602**	**50**	**NA**	**348**	**7**	**340**
1978 AVERAGE	**-14**	**16**	**14,739**	**158**	**NA**	**376**	**67**	**309**
1979 AVERAGE	**-13**	**16**	**14,648**	**235**	**NA**	**430**	**91**	**339**
1980 AVERAGE	**-13**	**15**	**13,481**	**287**	**NA**	[6] **466**	**108**	[6] **358**
1981 AVERAGE	**-58**	**5**	**12,470**	**228**	**NA**	**594**	**230**	**363**
1982 January	-63	3	11,599	238	NA	606	235	371
February	-64	2	11,236	304	NA	613	241	372
March	-63	5	11,276	321	NA	609	249	361
April	-65	3	11,392	174	NA	610	256	355
May	-62	3	11,806	262	NA	609	261	348
June	-60	7	12,494	94	NA	608	264	344
July	-60	3	12,446	229	NA	613	267	346
August	-57	2	11,871	304	NA	626	274	353
September	-56	4	12,146	184	NA	619	278	341
October	-51	2	11,749	270	NA	636	285	351
November	-51	1	11,724	262	NA	648	290	358
December	-53	1	11,514	193	NA	[6] 644	294	[6] 350
AVERAGE	**-59**	**3**	**11,774**	**236**	**NA**			
1983 January	NA	2	11,143	117	71	660	301	360
February	NA	3	10,633	262	71	669	306	363
March	NA	2	10,859	174	70	667	312	355
April	NA	2	11,433	88	68	679	318	361
May	NA	1	11,800	280	63	679	327	353
June	NA	(s)	12,284	144	64	683	332	351
July	NA	2	12,360	145	65	676	341	335
August	NA	1	12,152	172	64	700	352	349
September	NA	1	12,482	177	66	708	361	347
October	NA	1	11,782	140	63	716	367	349
November	NA	2	12,004	186	64	713	371	341
December	NA	1	11,234	95	67	723	379	344
AVERAGE	**NA**	**2**	**11,685**	**164**	**66**			
1984 January	NA	1	11,579	153	64	733	384	348
February	NA	1	12,100	185	65	727	387	340
March	NA	2	11,936	236	62	728	392	336
April*	NA	(s)	R 11,893	172	64	R 744	397	R 348
May**	NA	NA	*12,341*	NA	NA	*764*	*403*	*361*
AVERAGE	**NA**	**NA**	**11,969**	**NA**	**NA**			

(s) = Less than 500 barrels per day.
* See Explanatory Note 9.2.
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.
R = Revised data. NA = Not available.
Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Crude Oil and Petroleum Product Imports

	Imports from OPEC Sources[1]										
	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC[2]	Total OPEC	Total Arab OPEC[3]
	Thousand Barrels per Day										
1973 AVERAGE	**136**	**164**	**486**	**71**	**213**	**223**	**459**	**1,135**	**106**	**2,993**	**915**
1974 AVERAGE	**190**	**4**	**461**	**74**	**300**	**469**	**713**	**979**	**88**	**3,280**	**752**
1975 AVERAGE	**282**	**232**	**715**	**117**	**390**	**280**	**762**	**702**	**122**	**3,601**	**1,383**
1976 AVERAGE	**432**	**453**	**1,230**	**254**	**539**	**298**	**1,025**	**700**	**134**	**5,066**	**2,424**
1977 AVERAGE	**559**	**723**	**1,380**	**335**	**541**	**535**	**1,143**	**690**	**287**	**6,193**	**3,185**
1978 AVERAGE	**649**	**654**	**1,144**	**385**	**573**	**555**	**919**	**645**	**226**	**5,751**	**2,963**
1979 AVERAGE	**636**	**658**	**1,356**	**281**	**420**	**304**	**1,080**	**690**	**212**	**5,637**	**3,056**
1980 AVERAGE	**488**	**554**	**1,261**	**172**	**348**	**9**	**857**	**481**	**130**	**4,300**	**2,551**
1981 AVERAGE	**311**	**319**	**1,129**	**81**	**366**	**0**	**620**	**406**	**90**	**3,323**	**1,848**
1982 January	254	161	877	111	289	0	663	376	128	2,859	1,403
February	139	92	693	89	244	0	584	355	102	2,297	1,054
March	91	37	555	155	200	0	522	399	91	2,051	860
April	85	0	511	122	215	0	427	426	85	1,871	740
May	179	0	601	116	236	0	222	422	54	1,830	897
June	115	0	593	94	215	72	537	361	110	2,096	820
July	159	0	660	108	327	69	910	356	95	2,685	965
August	181	0	489	133	271	27	574	299	133	2,107	818
September	179	0	432	57	191	21	477	518	69	1,943	677
October	249	7	494	61	242	108	313	504	106	2,084	810
November	247	14	489	47	283	34	479	528	115	2,235	797
December	155	0	237	12	265	88	462	399	73	1,690	421
AVERAGE	**170**	**26**	**552**	**92**	**248**	**35**	**514**	**412**	**97**	**2,146**	**854**
1983 January	207	0	282	47	255	43	186	337	54	1,412	537
February	115	0	214	9	217	0	92	393	28	1,068	338
March	63	0	103	0	138	0	121	440	201	1,066	183
April	227	0	162	(s)	210	0	186	523	125	1,432	389
May	286	0	122	12	405	37	385	455	69	1,771	420
June	300	0	188	40	466	38	467	335	138	1,973	528
July	283	0	182	64	464	112	525	434	187	2,251	606
August	378	0	448	52	433	213	464	511	230	2,728	903
September	423	0	587	21	501	86	324	432	221	2,595	1,084
October	261	0	638	16	368	12	307	337	169	2,108	938
November	184	0	545	56	302	21	215	452	135	1,910	807
December	144	0	569	45	294	9	329	415	163	1,969	826
AVERAGE	**240**	**0**	**337**	**30**	**338**	**48**	**302**	**422**	**144**	**1,862**	**632**
1984 January	242	0	463	114	278	0	243	547	51	1,939	828
February	348	0	324	33	267	0	244	481	174	1,871	723
March	283	0	307	112	284	67	260	354	127	1,792	717
April	280	0	320	95	221	0	288	581	158	1,944	734
AVERAGE	**287**	**0**	**354**	**90**	**263**	**17**	**259**	**490**	**126**	**1,886**	**751**

---

[1] Excludes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

[2] Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

[3] Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

Footnotes continued on following page.

Crude Oil and Petroleum Product Imports (continued)

	Imports from Non-OPEC Sources[4]										
	Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non OPEC	Total Non OPEC	Total Imports
	Thousand Barrels per Day										
1973 AVERAGE	**174**	**1,325**	**16**	**585**	**255**	**15**	**99**	**329**	**465**	**3,263**	**6,256**
1974 AVERAGE	**164**	**1,070**	**8**	**511**	**251**	**8**	**90**	**391**	**340**	**2,832**	**6,112**
1975 AVERAGE	**152**	**846**	**71**	**332**	**242**	**14**	**90**	**406**	**300**	**2,454**	**6,056**
1976 AVERAGE	**118**	**599**	**87**	**275**	**274**	**31**	**88**	**422**	**353**	**2,247**	**7,313**
1977 AVERAGE	**171**	**517**	**179**	**211**	**289**	**126**	**105**	**466**	**550**	**2,614**	**8,807**
1978 AVERAGE	**160**	**467**	**318**	**229**	**253**	**180**	**94**	**429**	**484**	**2,613**	**8,363**
1979 AVERAGE	**147**	**538**	**439**	**231**	**190**	**202**	**92**	**431**	**548**	**2,819**	**8,456**
1980 AVERAGE	**78**	**455**	**533**	**225**	**176**	**176**	**88**	**388**	**491**	**2,609**	**6,909**
1981 AVERAGE	**74**	**447**	**522**	**197**	**133**	**375**	**62**	**327**	**534**	**2,672**	**5,996**
1982 January	58	513	425	179	106	346	62	334	452	2,474	5,332
February	67	537	476	221	120	181	38	362	508	2,510	4,807
March	43	437	503	189	118	294	62	307	480	2,433	4,484
April	82	360	476	184	166	247	36	266	690	2,507	4,378
May	77	419	766	152	95	516	47	302	607	2,981	4,811
June	32	481	797	148	129	557	58	322	708	3,231	5,327
July	64	536	783	158	118	433	38	376	698	3,204	5,890
August	80	443	853	145	106	520	24	317	650	3,137	5,244
September	92	493	897	195	89	631	51	278	746	3,472	5,414
October	45	459	682	148	109	666	52	262	801	3,222	5,306
November	51	553	860	212	90	623	81	334	706	3,508	5,744
December	88	561	689	174	102	438	48	336	480	2,916	4,606
AVERAGE	**65**	**482**	**685**	**175**	**112**	**456**	**50**	**316**	**627**	**2,968**	**5,113**
1983 January	68	534	849	228	73	314	40	299	621	3,026	4,438
February	92	586	722	183	81	193	50	192	558	2,658	3,726
March	86	488	775	187	78	240	43	162	565	2,624	3,690
April	174	454	981	216	85	421	20	183	759	3,295	4,727
May	135	518	944	153	108	484	42	235	699	3,318	5,089
June	137	586	830	173	120	440	48	262	757	3,353	5,326
July	69	634	849	198	107	369	37	364	864	3,490	5,741
August	144	542	906	197	90	461	40	313	738	3,431	6,159
September	148	533	849	261	82	475	33	307	845	3,534	6,129
October	171	532	771	172	106	414	48	357	580	3,151	5,258
November	148	556	726	144	110	334	55	427	801	3,300	5,210
December	127	604	710	153	113	429	22	278	628	3,063	5,033
AVERAGE	**125**	**547**	**826**	**189**	**96**	**382**	**40**	**282**	**701**	**3,189**	**5,051**
1984 January	152	624	705	277	54	382	53	390	772	3,408	5,347
February	142	620	747	288	77	338	58	418	1,083	3,772	5,643
March	88	726	707	169	93	400	34	247	996	3,460	5,253
April	88	691	859	207	91	282	37	257	863	3,375	5,319
AVERAGE	**117**	**666**	**754**	**235**	**79**	**351**	**45**	**327**	**926**	**3,500**	**5,387**

Footnotes continued.

[4] Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

(s) = Less than 500 barrels per day.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

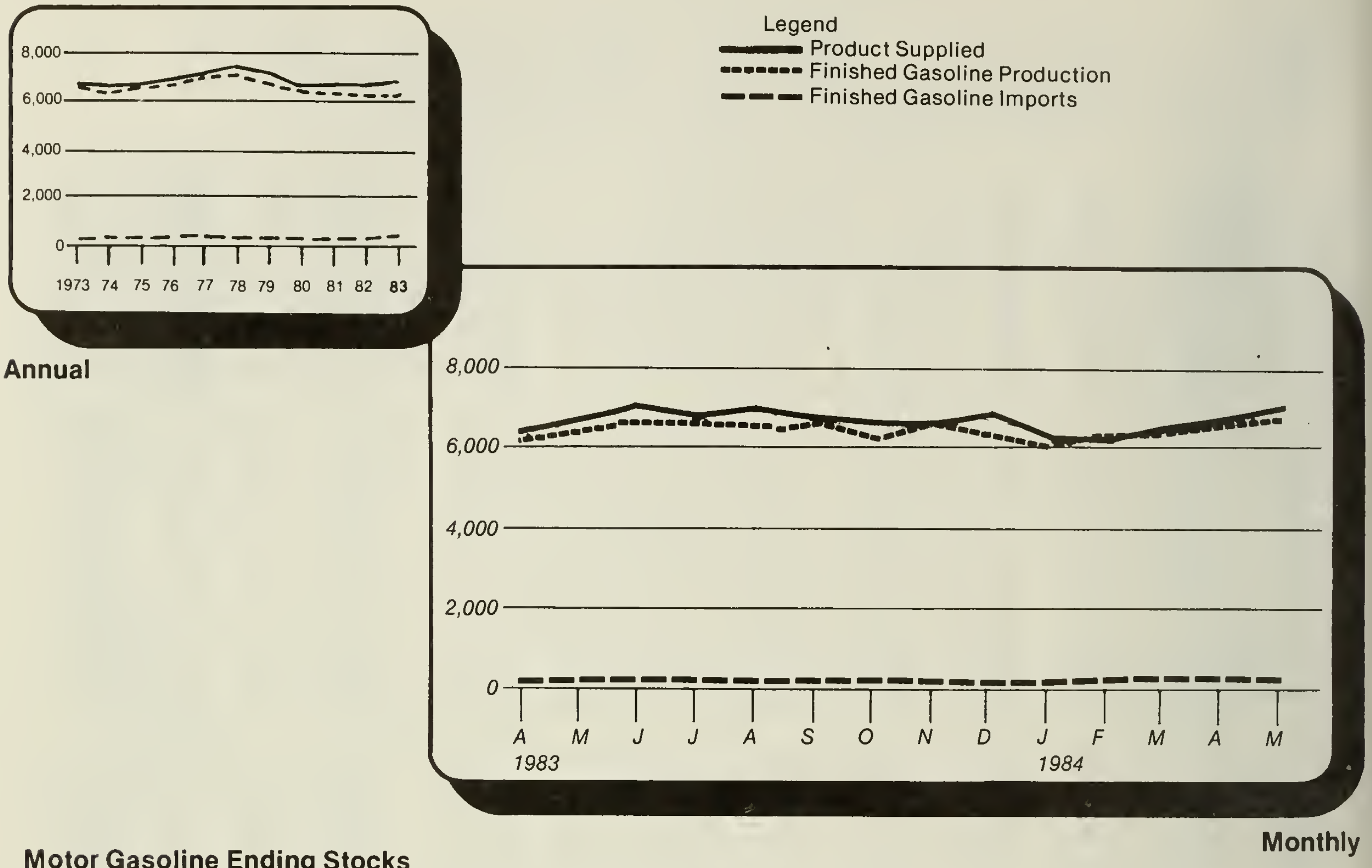
Total may not equal sum of components due to independent rounding.

Geographic coverage: The 50 United States and the District of Columbia.

Source: See the last page of this section.

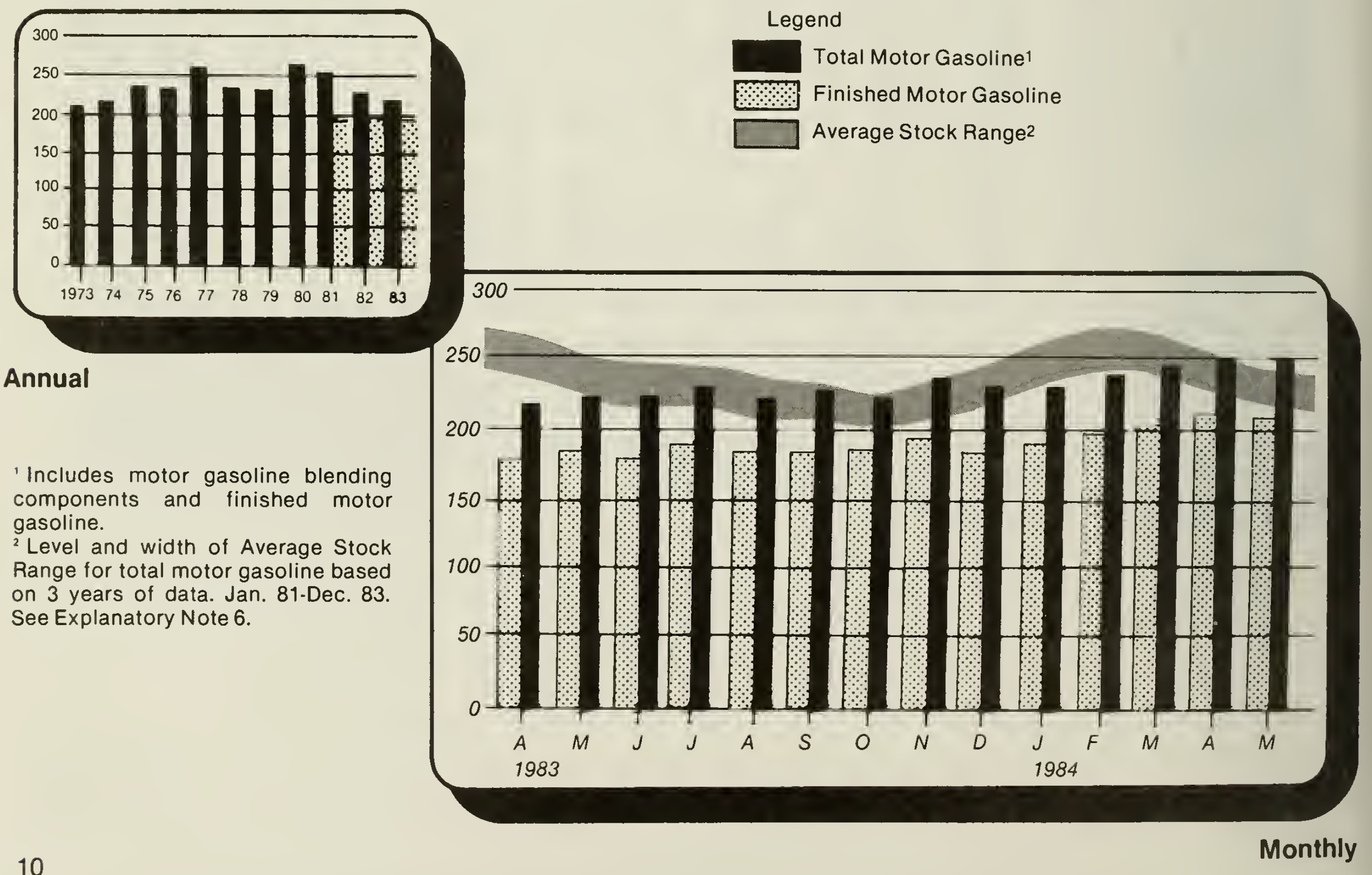
Motor Gasoline Supply and Disposition

(Thousand Barrels Per Day)



Motor Gasoline Ending Stocks

(Million Barrels)



[1] Includes motor gasoline blending components and finished motor gasoline.

[2] Level and width of Average Stock Range for total motor gasoline based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

inished Motor Gasoline Supply and Disposition

	Supply			Disposition				Ending Stocks[1]	
					Products Supplied				
	Total Production	Imports[2]	Stock Withdrawal[2] [3]	Exports	Total	Unleaded[4]	Unleaded	Total Motor Gasoline[5]	Finished Motor Gasoline
	Thousand Barrels per Day						Percent of Total	Million Barrels	
973 **AVERAGE**	**6,535**	**134**	**9**	**4**	**6,674**	**NA**	**NA**	**209**	
974 **AVERAGE**	**6,360**	**204**	**-24**	**2**	**6,537**	**NA**	**NA**	[6] **218**	
975 **AVERAGE**	**6,520**	**184**	[6] **-28**	**2**	**6,675**	**NA**	**NA**	**235**	
976 **AVERAGE**	**6,841**	**131**	**10**	**3**	**6,978**	**NA**	**NA**	**231**	
977 **AVERAGE**	**7,033**	**217**	**-72**	**2**	**7,177**	**1,976**	**27.5**	**258**	
978 **AVERAGE**	**7,169**	**190**	**54**	**1**	**7,412**	**2,521**	**34.0**	**238**	
979 **AVERAGE**	**6,852**	**181**	**2**	(s)	**7,034**	**2,798**	**39.8**	**237**	
980 **AVERAGE**	**6,506**	**140**	**-66**	**1**	**6,579**	**3,067**	**46.6**	[6] **261**	
981 **AVERAGE**[7]	**6,405**	**157**	[6] **28**	**2**	**6,588**	**3,264**	**49.5**	**253**	
982 January	6,167	128	-316	18	5,961	3,067	51.5	261	213
February	5,899	133	172	8	6,196	3,210	51.8	257	208
March	5,994	183	334	44	6,466	3,358	51.9	247	198
April	6,095	185	650	33	6,897	3,495	50.7	221	179
May	6,319	182	177	23	6,655	3,415	51.3	214	173
June	6,754	230	-134	14	6,835	3,565	52.2	219	177
July	6,768	225	-178	24	6,790	3,577	52.7	226	183
August	6,419	291	-81	16	6,614	3,526	53.3	227	185
September	6,527	223	-198	22	6,531	3,404	52.1	234	191
October	6,262	185	-42	15	6,391	3,351	52.4	234	192
November	6,273	211	101	11	6,574	3,451	52.5	230	189
December	6,542	178	-165	7	6,549	3,485	53.2	[6] 235	[6] 194
AVERAGE	**6,338**	**197**	**25**	**20**	**6,539**	**3,409**	**52.1**		
1983 January	6,065	153	[6] -167	(s)	6,051	3,364	55.6	250	207
February	5,848	128	24	(s)	6,000	3,264	54.4	250	207
March	5,906	186	768	23	6,836	3,622	53.0	223	183
April	6,201	255	-3	1	6,452	3,492	54.1	221	183
May	6,397	305	-83	1	6,617	3,558	53.8	223	185
June	6,655	277	84	22	6,994	3,792	54.2	223	183
July	6,707	302	-225	18	6,765	3,746	55.4	231	190
August	6,537	250	161	13	6,936	3,836	55.3	226	185
September	6,611	279	-149	14	6,727	3,691	54.9	229	189
October	6,188	330	72	2	6,588	3,711	56.3	227	187
November	6,634	269	-298	2	6,603	3,692	55.9	236	196
December	6,308	224	339	25	6,846	3,966	57.9	222	186
AVERAGE	**6,340**	**247**	**45**	**10**	**6,622**	**3,647**	**55.1**		
1984 January	6,037	233	-1	1	6,268	3,606	57.5	225	186
February	6,320	303	-384	2	6,237	3,585	57.5	237	197
March	6,375	343	-197	9	6,512	3,747	57.5	243	203
April*	R 6,528	R 308	R -153	(s)	R 6,682	3,854	57.7	R 248	R 207
May**	*6,709*	*316*	*-42*	NA	*6,977*	NA	NA	*248*	*207*
AVERAGE	**6,394**	**300**	**-153**	**NA**	**6,538**	**NA**	**NA**		

---

[1] Stocks are totals as of end of period.

[2] Beginning in 1981, excludes blending components.

[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[4] Includes gasohol.

[5] Includes motor gasoline blending components.

[6] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

[7] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.3.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

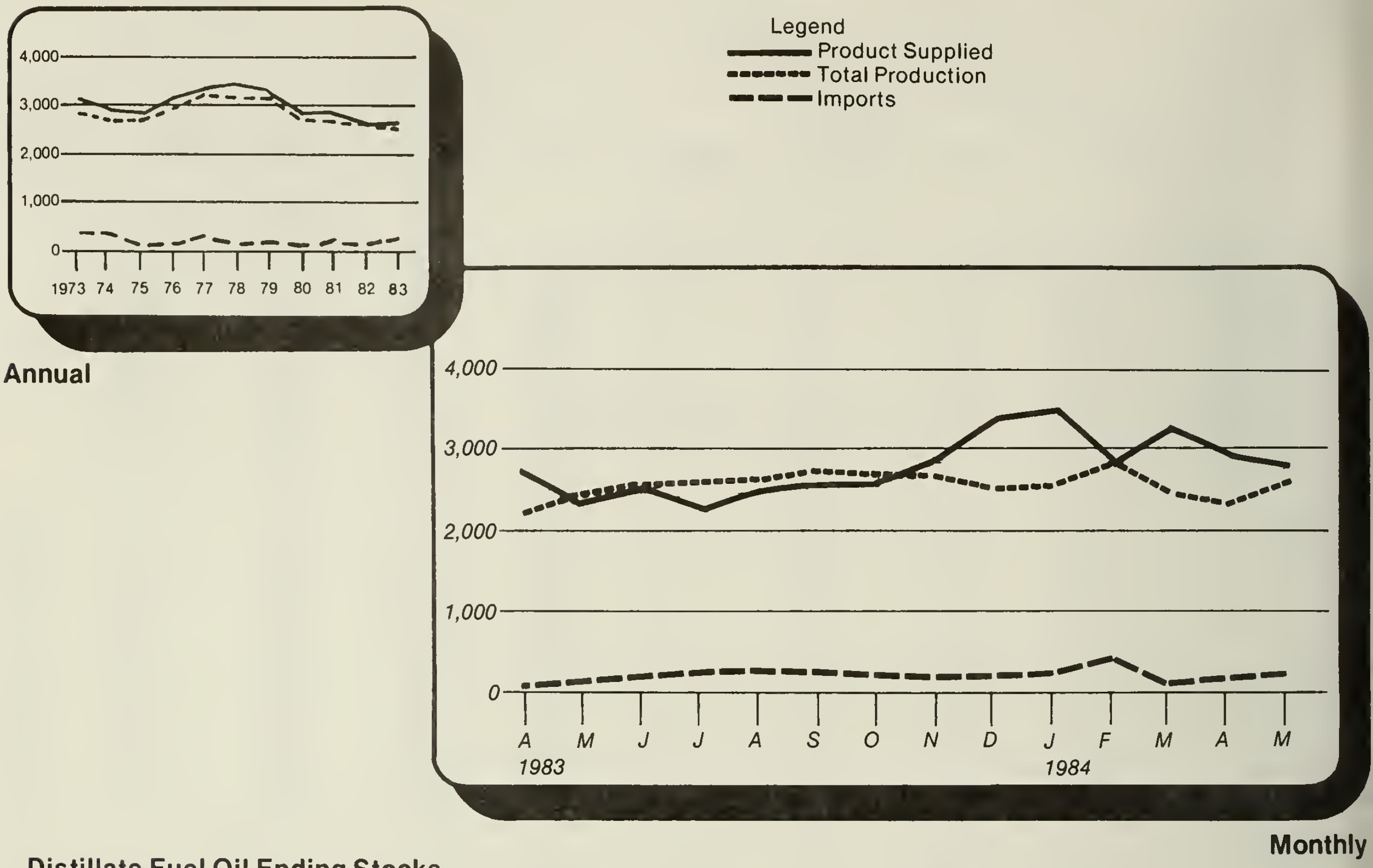
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

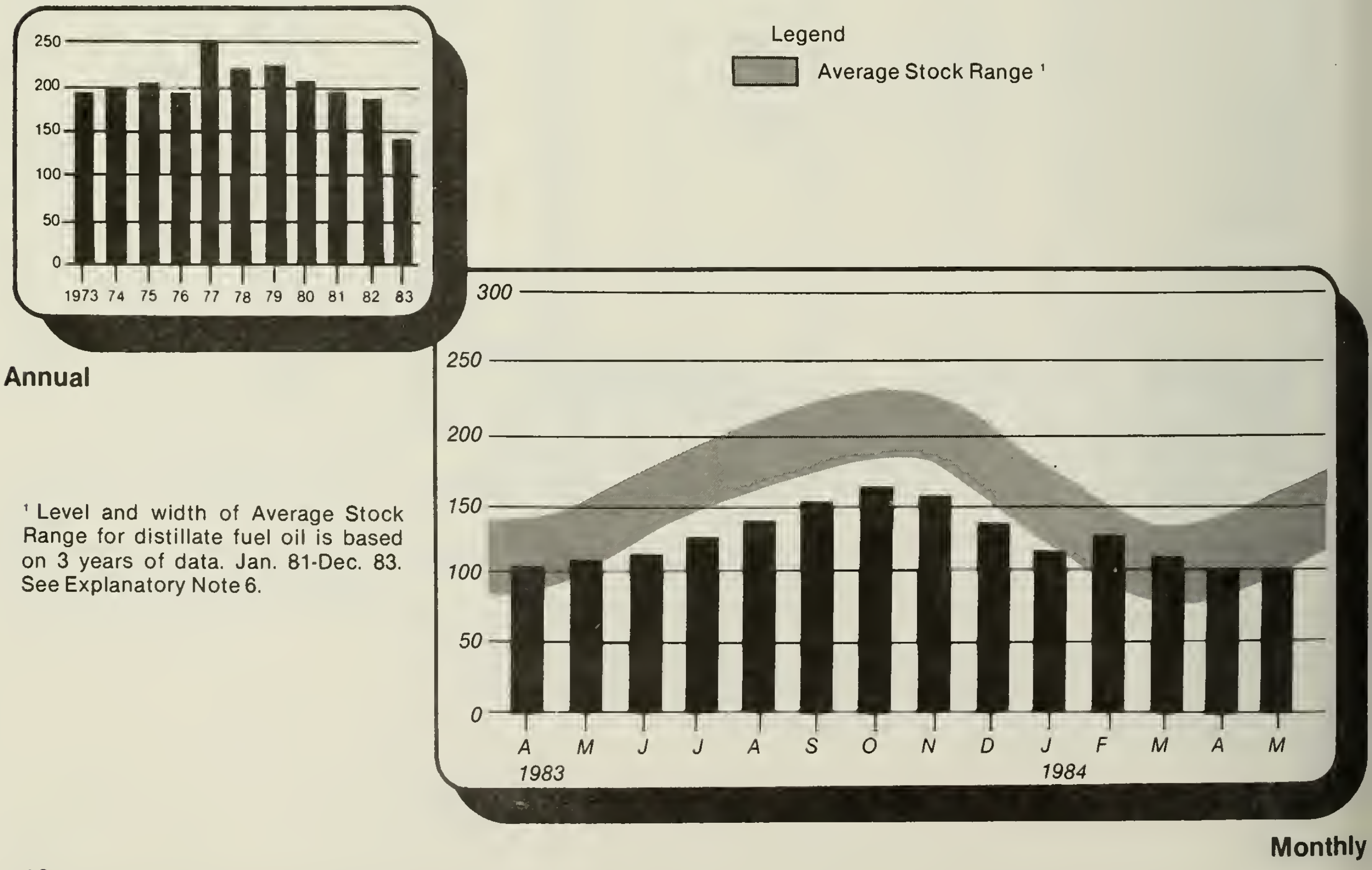
Distillate Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



Distillate Fuel Oil Ending Stocks

(Million Barrels)



[1] Level and width of Average Stock Range for distillate fuel oil is based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks[1]
		Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Products Supplied[3]	
		Thousand Barrels per Day						Million Barrels
1973	**AVERAGE**	**2,822**	**392**	**-115**	**2**	**9**	**3,092**	**196**
1974	**AVERAGE**	**2,669**	**289**	**-9**	**2**	**2**	**2,948**	[4] **200**
1975	**AVERAGE**	**2,654**	**155**	[4] **40**	**2**	**1**	**2,851**	**209**
1976	**AVERAGE**	**2,924**	**146**	**62**	**1**	**1**	**3,133**	**186**
1977	**AVERAGE**	**3,278**	**250**	**-176**	**1**	**1**	**3,352**	**250**
1978	**AVERAGE**	**3,167**	**173**	**93**	**1**	**3**	**3,432**	**216**
1979	**AVERAGE**	**3,153**	**193**	**-34**	**1**	**3**	**3,311**	**229**
1980	**AVERAGE**	**2,662**	**142**	**64**	**1**	**3**	**2,866**	[4] **205**
1981	**AVERAGE**[5]	**2,613**	**173**	[4] **38**	**10**	**5**	**2,829**	**192**
1982	January	2,591	97	876	10	90	3,484	164
	February	2,427	132	605	11	90	3,085	147
	March	2,288	48	682	10	84	2,945	126
	April	2,358	59	612	13	64	2,978	108
	May	2,618	74	-183	10	75	2,444	114
	June	2,729	102	-335	10	55	2,452	124
	July	2,734	125	-789	11	24	2,058	148
	August	2,507	80	-339	10	40	2,218	159
	September	2,657	61	-85	12	139	2,507	161
	October	2,838	91	-289	8	66	2,581	170
	November	2,860	145	-514	8	24	2,475	186
	December	2,655	109	225	10	143	2,855	[4] **179**
	AVERAGE	**2,606**	**93**	**35**	**10**	**74**	**2,671**	
1983	January	2,321	68	[4] **580**	NA	173	2,797	168
	February	2,135	59	691	NA	105	2,780	148
	March	1,993	42	971	NA	59	2,947	118
	April	2,171	73	500	NA	47	2,697	103
	May	2,444	147	-186	NA	50	2,354	109
	June	2,546	179	-161	NA	40	2,524	114
	July	2,604	267	-546	NA	55	2,270	131
	August	2,615	301	-379	NA	43	2,495	142
	September	2,739	259	-386	NA	37	2,575	154
	October	2,681	260	-276	NA	55	2,611	163
	November	2,680	203	45	NA	54	2,874	161
	December	2,522	221	676	NA	54	3,365	140
	AVERAGE	**2,456**	**174**	**124**	**NA**	**64**	**2,690**	
1984	January	2,585	270	676	NA	40	3,490	119
	February	2,864	458	-439	NA	41	2,842	132
	March	2,480	115	727	NA	66	3,256	110
	April*	R 2,347	R 220	R 693	NA	32	R 2,929	R 98
	May**	*2,630*	*241*	*-12*	NA	NA	*2,801*	*99*
	AVERAGE	**2,579**	**259**	**278**	**NA**	**NA**	**3,067**	

---

[1] Stocks are totals as of end of period.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 4.

[4] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

[5] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

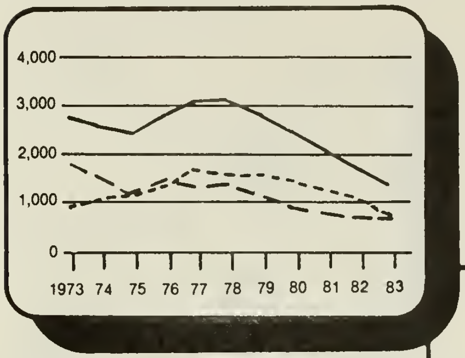
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

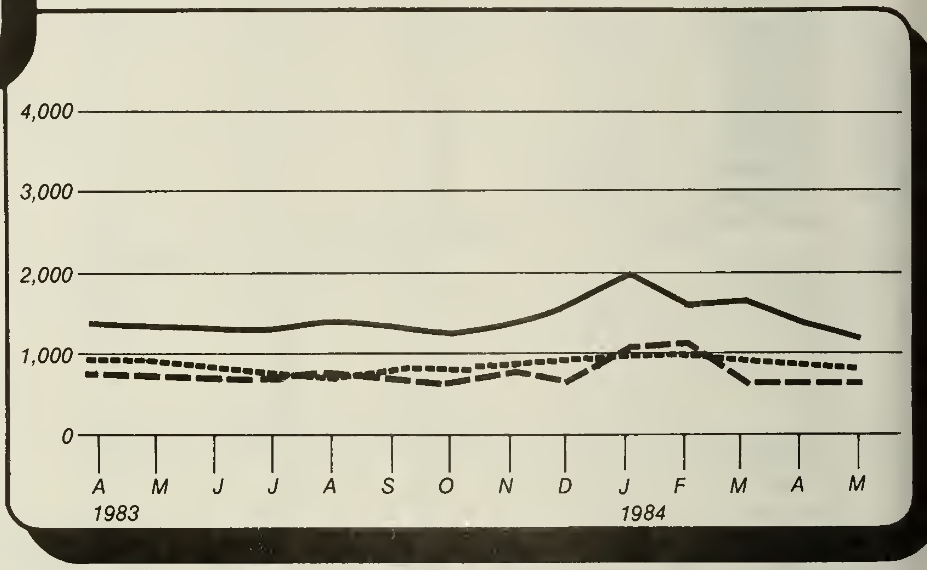
Residual Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



Annual

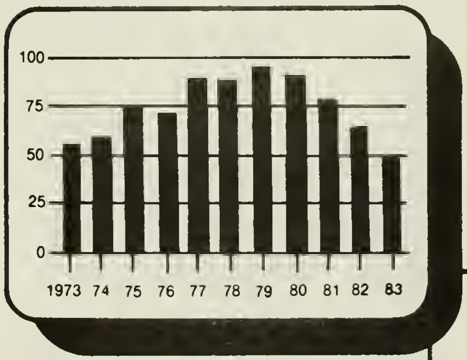
Legend
—— Product Supplied
------- Total Production
— — — Imports



Monthl

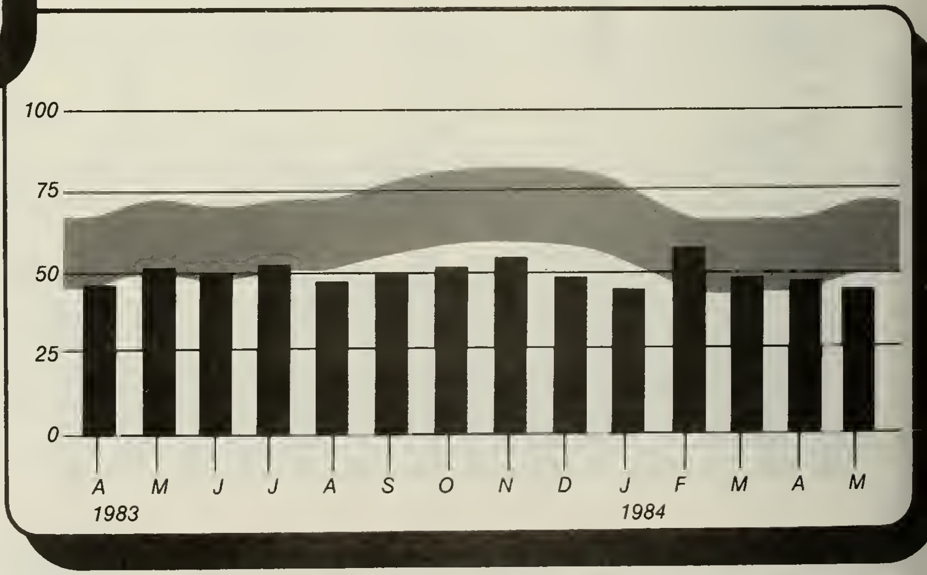
Residual Fuel Oil Ending Stocks

(Million Barrels)



Annual

Legend
▨ Average Stock Range [1]



Monthl

[1] Level and width of Average Stock Range for residual fuel oil based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

Residual Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks[1]
		Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Products Supplied[3]	
		Thousand Barrels per Day						Million Barrels
1973	**AVERAGE**	**971**	**1,853**	**5**	**17**	**23**	**2,822**	**53**
1974	**AVERAGE**	**1,070**	**1,587**	**-17**	**13**	**14**	**2,639**	[4] **60**
1975	**AVERAGE**	**1,235**	**1,223**	[4] **2**	**15**	**15**	**2,462**	**74**
1976	**AVERAGE**	**1,377**	**1,413**	**5**	**17**	**12**	**2,801**	**72**
1977	**AVERAGE**	**1,754**	**1,359**	**-48**	**13**	**6**	**3,071**	**90**
1978	**AVERAGE**	**1,667**	**1,355**	**-1**	**13**	**13**	**3,023**	**90**
1979	**AVERAGE**	**1,687**	**1,151**	**-15**	**12**	**9**	**2,826**	**96**
1980	**AVERAGE**	**1,580**	**939**	**10**	**12**	**33**	**2,508**	[4] **92**
1981	**AVERAGE**[5]	**1,321**	**800**	[4] **37**	**48**	**118**	**2,088**	**78**
1982	January	1,235	831	301	53	235	2,185	69
	February	1,186	956	363	53	213	2,344	58
	March	1,123	912	12	53	197	1,903	58
	April	1,166	788	150	52	234	1,923	54
	May	1,128	742	-172	52	191	1,560	59
	June	1,074	652	-57	50	217	1,501	61
	July	1,028	657	56	49	239	1,550	59
	August	965	551	203	47	235	1,531	53
	September	1,008	872	-306	44	148	1,470	62
	October	955	783	-57	43	234	1,490	64
	November	989	837	-94	43	182	1,591	66
	December	989	747	6	43	186	1,598	[4] **66**
	AVERAGE	**1,070**	**776**	**32**	**48**	**209**	**1,716**	
1983	January	972	691	[4] **258**	NA	294	1,626	61
	February	857	647	257	NA	191	1,570	53
	March	835	686	227	NA	169	1,579	46
	April	941	753	-10	NA	310	1,374	47
	May	936	738	-141	NA	190	1,342	51
	June	828	677	36	NA	218	1,323	50
	July	769	684	-64	NA	90	1,299	52
	August	710	739	115	NA	165	1,400	48
	September	826	706	-47	NA	134	1,351	50
	October	807	638	-50	NA	153	1,243	51
	November	845	780	-97	NA	167	1,362	54
	December	897	649	182	NA	141	1,587	49
	AVERAGE	**852**	**699**	**55**	**NA**	**185**	**1,421**	
1984	January	953	1,061	119	NA	151	1,981	45
	February	1,003	1,107	-420	NA	87	1,602	58
	March	887	633	321	NA	204	1,637	48
	April*	R 840	R 637	R 9	NA	130	R 1,357	R 47
	May**	*793*	*575*	*-15*	NA	NA	*1,187*	*44*
	AVERAGE	**894**	**800**	**8**	**NA**	**NA**	**1,553**	

---

[1] Stocks are totals as of end of period.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 4.

[4] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

[5] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

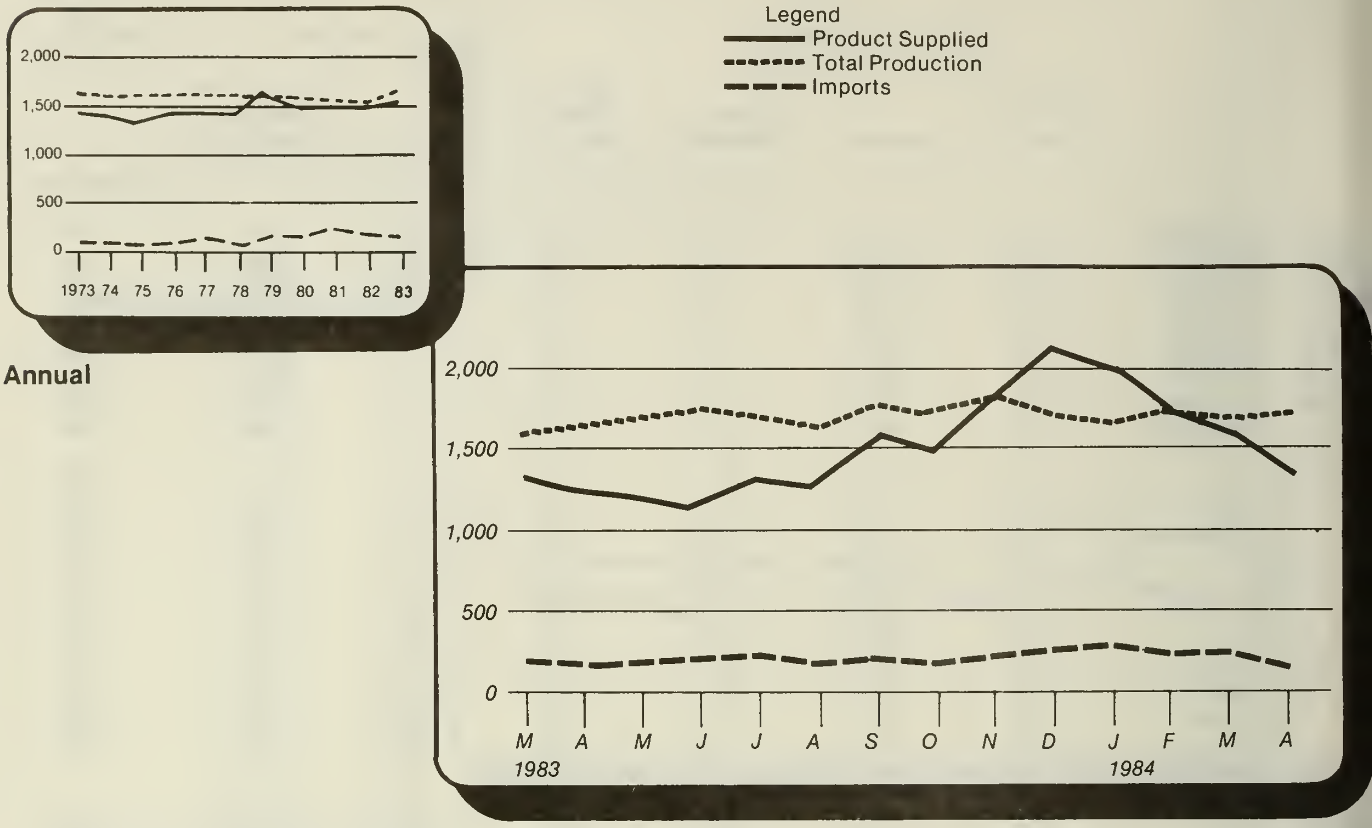
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

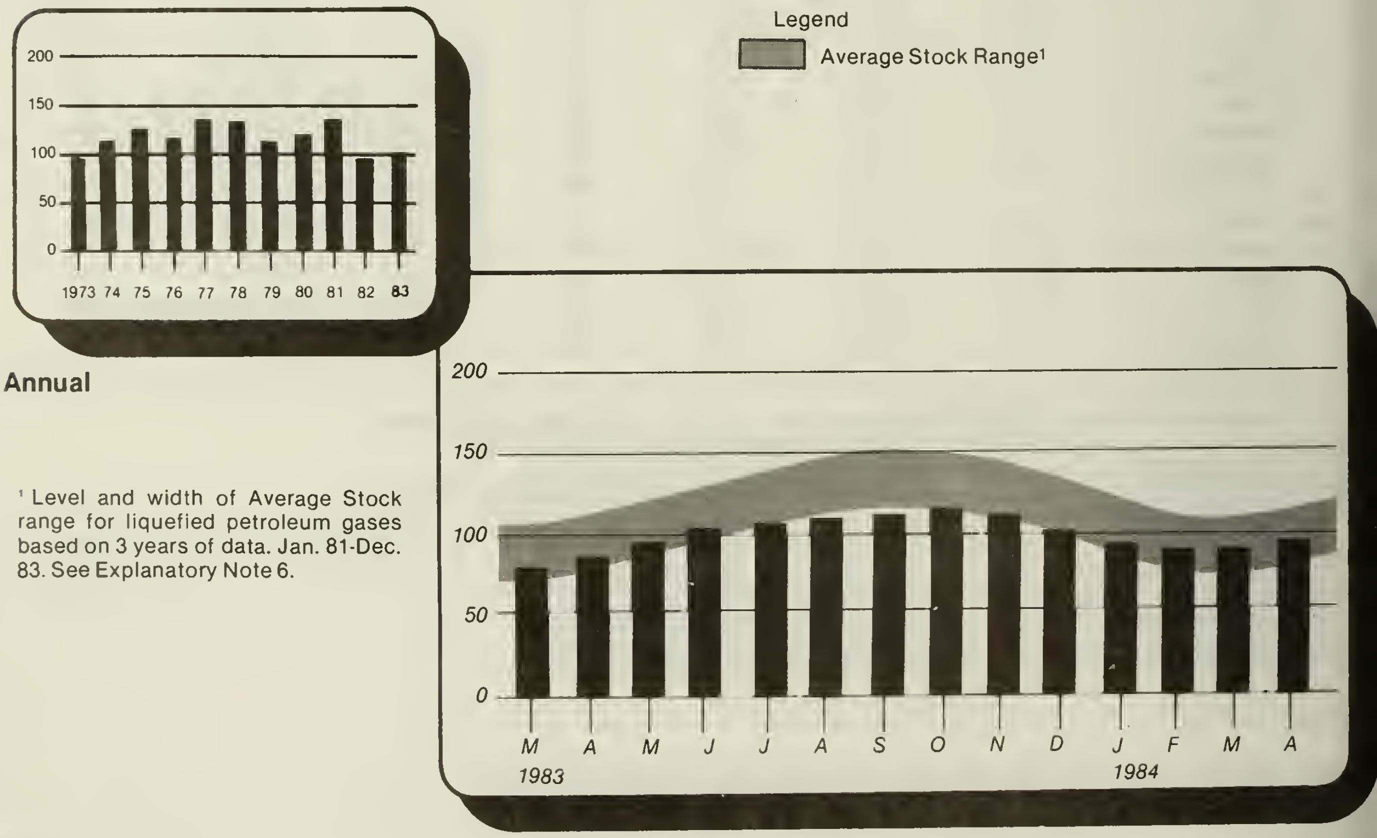
Liquefied Petroleum Gases Supply and Disposition

(Thousand Barrels Per Day)



Liquefied Petroleum Gases Ending Stocks

(Million Barrels)



[1] Level and width of Average Stock range for liquefied petroleum gases based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

Liquefied Petroleum Gases[1]Supply and Disposition

	Supply			Disposition			Ending Stocks[2]
	Total Production	Imports	Stock Withdrawal[3]	Refinery Inputs	Exports	Products Supplied	
	Thousand Barrels per Day						Million Barrels
1973 **AVERAGE**	**1,600**	**132**	**-35**	**220**	**27**	**1,449**	99
1974 **AVERAGE**	**1,565**	**123**	**-38**	**220**	**25**	**1,406**	[4] 113
1975 **AVERAGE**	**1,527**	**112**	[4] **-35**	**246**	**26**	**1,333**	125
1976 **AVERAGE**	**1,535**	**130**	**24**	**260**	**25**	**1,404**	116
1977 **AVERAGE**	**1,566**	**161**	**-55**	**233**	**18**	**1,422**	136
1978 **AVERAGE**	**1,537**	**123**	**12**	**239**	**20**	**1,413**	132
1979 **AVERAGE**	**1,556**	**217**	**70**	**236**	**15**	**1,592**	111
1980 **AVERAGE**	**1,535**	**216**	**-27**	**233**	**21**	**1,469**	[4] 120
1981 **AVERAGE**	**1,571**	**244**	[4] **-18**	**289**	**42**	**1,466**	135
1982 January	1,565	314	443	391	67	1,863	121
February	1,466	291	243	327	51	1,621	114
March	1,544	223	211	289	74	1,615	108
April	1,506	188	98	257	77	1,458	105
May	1,565	186	-71	234	43	1,403	107
June	1,515	192	-86	262	106	1,254	109
July	1,476	227	-13	253	37	1,399	110
August	1,511	125	-45	254	61	1,276	111
September	1,538	247	37	274	85	1,463	110
October	1,517	194	97	306	81	1,421	107
November	1,542	267	175	363	37	1,583	102
December	1,580	258	256	395	56	1,642	[4] 94
AVERAGE	**1,528**	**226**	**111**	**300**	**65**	**1,499**	
1983 January	1,611	240	[4] 520	313	118	1,939	86
February	1,600	305	128	244	76	1,713	82
March	1,543	166	-9	197	127	1,377	82
April	1,607	124	-156	198	116	1,260	87
May	1,613	167	-225	207	84	1,263	94
June	1,664	172	-334	203	59	1,241	104
July	1,656	191	-221	217	55	1,354	111
August	1,586	160	-199	229	29	1,289	117
September	1,705	178	-30	236	86	1,531	118
October	1,688	160	-81	268	32	1,467	120
November	1,785	180	70	362	33	1,640	118
December	1,645	247	575	363	66	2,038	[4] 101
AVERAGE	**1,642**	**190**	**4**	**253**	**73**	**1,509**	
1984 January	1,610	269	[4] 470	333	23	1,993	93
February	1,690	237	146	323	41	1,708	89
March	1,685	241	12	289	68	1,581	89
April*	1,711	155	-170	253	54	1,389	94
AVERAGE	**1,673**	**226**	**116**	**300**	**47**	**1,669**	

---

[1] Includes ethane, propane, normal butane, and isobutane.
Beginning in January 1984, unfractionated stream is reported by individual product.

[2] Stocks are totals as of end of period.

[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[4] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

* See Explanatory Note 9.5.

Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Other Petroleum Products[1] Supply and Disposition

		Supply			Disposition			Ending Stocks[2]
		Total Production	Imports	Stock Withdrawal[3]	Refinery Inputs	Exports	Products Supplied	
		Thousand Barrels per Day						Million Barrels
1973	**AVERAGE**	**3,693**	**502**	**-9**	**750**	**166**	**3,270**	**208**
1974	**AVERAGE**	**3,558**	**432**	**-28**	**665**	**174**	**3,123**	[4] **218**
1975	**AVERAGE**	**3,424**	**277**	[4] **-2**	**537**	**160**	**3,002**	**219**
1976	**AVERAGE**	**3,643**	**206**	**-5**	**524**	**175**	**3,145**	**220**
1977	**AVERAGE**	**3,912**	**205**	**-27**	**514**	**165**	**3,410**	**230**
1978	**AVERAGE**	**4,046**	**166**	**14**	**492**	**167**	**3,568**	**225**
1979	**AVERAGE**	**4,153**	**195**	**-37**	**352**	**209**	**3,749**	**238**
1980	**AVERAGE**	**3,956**	**210**	**-23**	**311**	**198**	**3,634**	[4] **247**
1981	**AVERAGE**	**3,739**	**226**	[4] **46**	**723**	**199**	**3,088**	**282**
1982	January	3,171	269	-7	624	180	2,631	282
	February	3,403	305	-153	663	138	2,755	287
	March	3,466	243	-191	725	161	2,631	293
	April	3,408	309	73	796	204	2,790	290
	May	3,317	318	184	824	210	2,785	285
	June	3,547	315	123	812	216	2,954	281
	July	3,660	408	-1	856	187	3,023	281
	August	3,583	346	217	743	202	3,201	274
	September	3,533	375	105	749	213	3,051	271
	October	3,529	383	244	915	266	2,976	264
	November	3,498	423	-28	837	269	2,786	264
	December	3,324	313	366	885	275	2,842	[4] 253
	AVERAGE	**3,453**	**334**	**80**	**787**	**211**	**2,869**	
1983	January	3,194	322	[4] -419	588	271	2,239	271
	February	3,229	321	12	673	232	2,658	270
	March	3,381	319	-147	572	249	2,732	275
	April	3,299	404	-24	592	247	2,840	276
	May	3,405	374	35	705	242	2,866	275
	June	3,610	444	96	717	292	3,144	272
	July	3,636	425	148	735	209	3,265	267
	August	3,695	482	30	668	242	3,297	266
	September	3,792	497	-6	788	236	3,255	266
	October	3,578	424	-107	711	195	2,990	270
	November	3,568	441	95	912	238	2,957	267
	December	3,123	479	361	883	257	2,823	[4] 256
	AVERAGE	**3,460**	**411**	**6**	**712**	**242**	**2,923**	
1984	January	3,391	486	[4] -177	561	207	2,931	253
	February	3,582	586	-256	751	225	2,935	261
	March	3,510	466	-218	530	258	2,969	268
	April*	3,584	582	-207	627	268	3,063	274
	AVERAGE	**3,515**	**529**	**-215**	**615**	**239**	**2,975**	

---

[1] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[2] Stocks are totals as of end of period.

[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[4] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

* See Explanatory Note 9.6.

Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

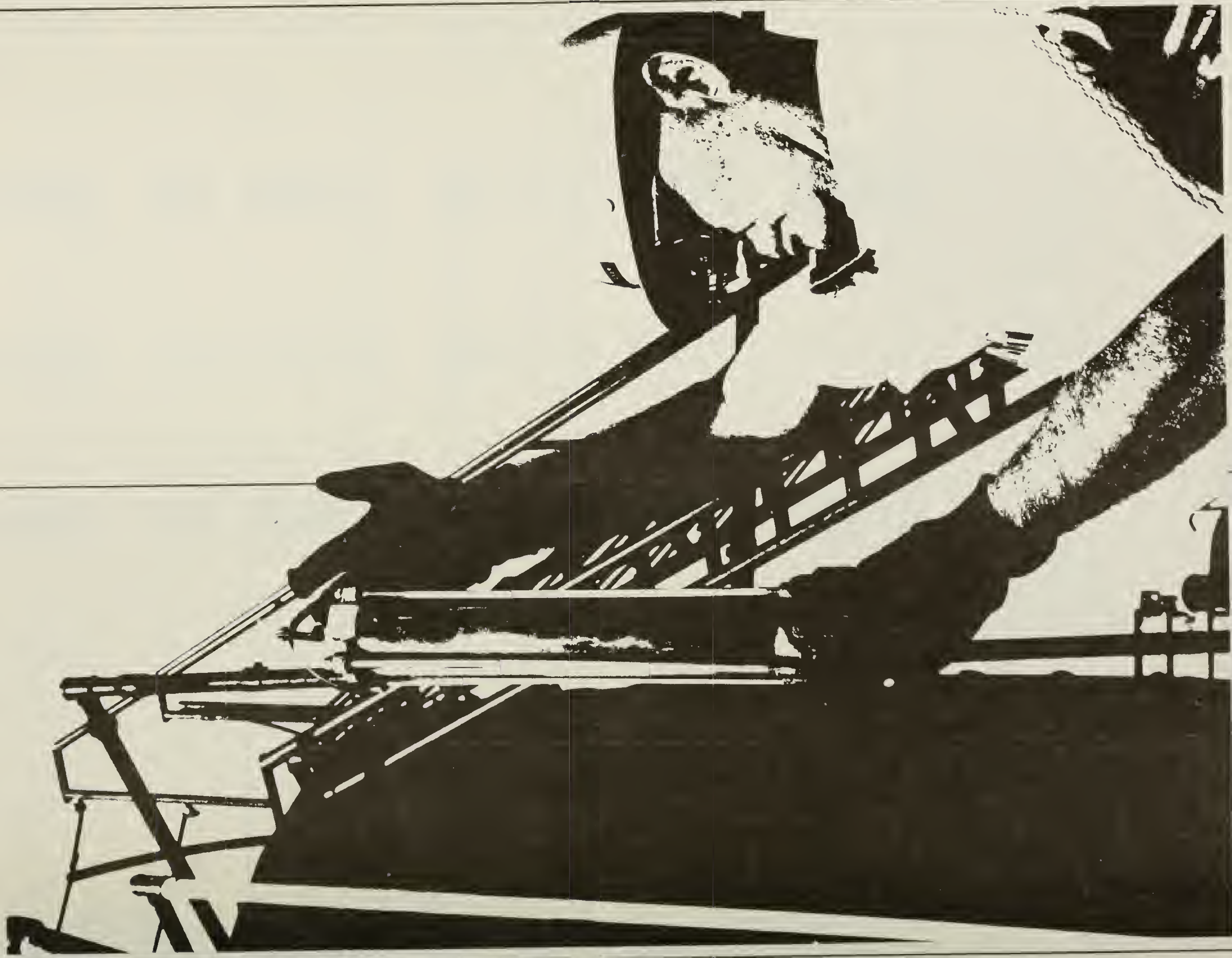
Source: See the last page of this section.

Sources

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual.*
2. 1977 through 1980: Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual,* and unleaded gasoline data from *Monthly Petroleum Statistics Report.*
3. January 1981 through December 1983: EIA, *Petroleum Supply Annual.*
4. January 1983 through April 1984: Detailed statistics in appropriate issues of the *Petroleum Supply Monthly.* (See Explanatory Notes 9.1 through 9.6).
5. May 1984: Estimates based on EIA weekly data (except domestic crude oil production) (see Explanatory Note 1.1).
6. January 1983 through May 1984: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey. (See Explanatory Note 3).

LIBRARY U. OF I. URBANA-CHAMPAIGN

Detailed Statistics



LIBRARY U. OF I. URBANA-CHAMPAIGN

1. U.S. Petroleum Balance, April 1984

	Current Month		Year-to-date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
ude Oil (Including Lease Condensate)				
ield Production				
Alaska	E 51,741	1,725	E 210,115	1,736
Lower 48 States	E 208,902	6,963	E 842,240	6,961
Total U.S.	E 260,643	8,688	E 1,052,355	8,697
let Imports				
Imports (Gross Excluding SPR)	97,418	3,247	370,792	3,064
SPR Imports	5,096	170	18,320	151
Exports	5,147	172	22,545	186
Imports (Net Including SPR)	97,367	3,246	366,568	3,029
Other Sources				
SPR Withdrawal (+) or Addition (-)	-5,087	-170	-17,792	-147
Other Stock Withdrawal (+) or Addition (-)	-11,875	-396	-4,440	-37
Product Supplied and Losses	-1,934	-64	-7,857	-65
Unaccounted for [1]	17,685	590	47,826	395
Total Other Sources	-1,211	-40	17,737	147
rude Input to Refineries	356,799	11,893	1,436,660	11,873
3) = (3) + (7) + (12)				
atural Gas Plant Liquids (NGPL)				
Field Production	48,475	1,616	194,093	1,604
Net Imports [2]	485	16	3,979	33
Stock Withdrawal (+) or Addition (-) [2]	-945	-32	-123	-1
Total NGPL Supply	48,015	1,600	197,949	1,636
ther Liquids				
Unfinished Oils and Gasoline Blending Components, Total				
Stock Withdrawal (+) or Addition (-)	-4,728	-158	-16,485	-136
Imports	11,870	396	37,566	310
Other Hydrocarbons and Alcohol New Supply (Field Production)	1,288	43	5,547	46
Refinery Processing Gain [1]	17,325	578	66,490	550
Crude Oil Product Supplied	1,926	64	7,717	64
Total Other Liquids	27,681	923	100,835	833
(23) = (18) through (22)				
otal Production of Products [3]	432,494	14,416	1,735,444	14,343
24) = (13) + (17) + (23)				
let Imports of Refined Products [3]				
Imports (Gross)	44,626	1,488	220,813	1,825
Exports	14,419	481	57,523	475
Imports (Net)	30,207	1,007	163,290	1,350
Total New Supply of Products	462,701	15,423	1,898,734	15,692
28) = (24) + (27)				
Refined Products Stock Withdrawal (+) or Addition (-) [3]	1,826	61	27,097	224
Total Petroleum Products Supplied for Domestic Use	464,527	15,484	1,925,831	15,916
30) = (28) + (29)				
Finished Motor Gasoline	200,450	6,682	777,488	6,426
Distillate Fuel Oil	87,870	2,929	379,405	3,136
Residual Fuel Oil	40,698	1,357	199,313	1,647
Liquefied Petroleum Gases	41,685	1,389	201,983	1,669
Other [4]	91,898	3,063	359,925	2,975
Crude Oil	1,926	64	7,717	64
Total Product Supplied	464,527	15,484	1,925,831	15,916
(37) = (31) through (36)				
Ending Stocks, All Oils				
Crude Oil and Lease Condensate (Excluding SPR)	347,616	--	347,616	--
Strategic Petroleum Reserve (SPR)	396,881	--	396,881	--
Unfinished Oils	120,259	--	120,259	--
Gasoline Blending Components [5]	41,246	--	41,246	--
Pentanes Plus	8,888	--	8,888	--
Finished Refined Products [3]	549,953	--	549,953	--
Total Stocks	1,464,843	--	1,464,843	--

A balancing item.
Includes products in the pentanes plus category only.
For products included see Explanatory Note 9.7.
Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil and liquefied petroleum gases.
Includes other hydrocarbons and alcohol.
= Estimated.
-- Not Applicable.
ote: Total may not equal sum of components due to independent rounding.
ources and estimation procedures: See Explanatory Notes 1, 2 and 9.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, April 1984 (Thousand Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E **260,643**	**0**	**102,514**	**-16,962**	**17,685**	**8**	**356,799**	**5,147**	**1,926**	**744,497**
Natural Gas Liquids and LRGs	**48,285**	**11,522**	**5,231**	**-6,050**	**0**	**0**	**12,929**	**1,700**	**44,359**	**102,569**
Pentanes Plus	8,473	0	569	-945	0	0	5,339	84	2,674	8,888
Liquefied Petroleum Gases	39,812	11,522	4,662	-5,105	0	0	7,590	1,616	41,685	93,681
Ethane	15,088	723	1,728	137	0	0	69	168	17,439	21,267
Propane	15,740	8,419	1,479	-4,704	0	0	125	877	19,932	45,545
Normal Butane	5,982	2,412	880	-784	0	0	4,056	486	3,948	17,721
Isobutane	3,002	-32	574	246	0	0	3,340	84	366	9,148
Other Liquids	**1,288**	**0**	**11,870**	**-4,728**	**0**	**0**	**13,473**	**0**	**-5,043**	**161,505**
Other Hydrocarbons and Alcohol	1,288	0	0	9	0	0	1,297	0	0	238
Unfinished Oils	0	0	9,781	-4,591	0	0	9,150	0	-3,960	120,259
Motor Gasoline Blending Components	0	0	2,089	-165	0	0	3,007	0	-1,083	40,625
Aviation Gasoline Blending Components	0	0	0	19	0	0	19	0	0	383
Finished Petroleum Products	**190**	**389,004**	**39,964**	**6,931**	**0**	**0**	**0**	**12,803**	**423,286**	**456,272**
Finished Motor Gasoline	79	195,756	9,227	-4,603	0	0	0	9	200,450	207,401
Finished Leaded Motor Gasoline	52	82,307	5,038	-2,568	0	0	0	9	84,820	101,040
Finished Unleaded Motor Gasoline	27	113,449	4,189	-2,035	0	0	0	0	115,630	106,361
Finished Aviation Gasoline	0	632	1	152	0	0	0	0	785	2,570
Naphtha-Type Jet Fuel	0	5,917	1,364	0	0	0	0	31	7,250	6,719
Kerosene-Type Jet Fuel	0	25,960	1,493	-80	0	0	0	148	27,225	33,981
Kerosene	0	2,206	5	1,152	0	0	0	3	3,361	6,683
Distillate Fuel Oil	41	70,376	6,608	11,804	0	0	0	959	87,870	97,840
Residual Fuel Oil	0	25,195	19,120	269	0	0	0	3,885	40,698	47,370
Naphtha < 400 Deg. for Petro. Feed. Use	0	4,246	55	20	0	0	0	267	4,055	2,044
Other Oils > 400 Deg. for Petro. Feed. Use	0	8,229	0	-210	0	0	0	551	7,468	2,166
Special Naphthas	0	1,781	1,079	-179	0	0	0	69	2,612	3,235
Lubricants	0	5,464	251	161	0	0	0	457	5,419	11,019
Waxes	0	448	36	15	0	0	0	38	461	650
Petroleum Coke	0	13,640	0	-13	0	0	0	6,352	7,275	5,693
Asphalt and Road Oil	0	10,007	2	-1,421	0	0	0	7	8,580	26,621
Still Gas	0	17,179	0	0	0	0	0	0	17,179	0
Miscellaneous Products	70	1,968	723	-136	0	0	0	26	2,599	2,280
Total	310,406	400,526	159,579	-20,809	17,685	8	383,201	19,651	464,527	1,464,843

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products, January - April 1984 (Thousand Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 1,052,355	0	389,113	-22,232	47,826	140	1,436,660	22,545	7,717	744,497
Natural Gas Liquids and LRGs	193,361	43,267	31,660	13,953	0	0	60,166	5,985	216,091	102,569
Pentanes Plus	34,159	0	4,311	-123	0	0	23,907	332	14,108	8,888
Liquefied Petroleum Gases	159,202	43,267	27,349	14,076	0	0	36,259	5,652	201,983	93,681
Ethane	60,722	2,968	11,162	112	0	0	265	665	74,034	21,267
Propane	62,762	33,202	8,906	9,735	0	0	536	3,343	110,725	45,545
Normal Butane	24,118	7,171	4,403	2,668	0	0	21,419	1,313	15,629	17,721
Isobutane	11,600	-74	2,879	1,561	0	0	14,039	332	1,595	9,148
Other Liquids	5,547	0	37,566	-16,485	0	0	50,505	0	-23,877	161,505
Other Hydrocarbons and Alcohol	5,547	0	0	47	0	0	5,594	0	0	238
Unfinished Oils	0	0	30,209	-12,761	0	0	30,970	0	-13,522	120,259
Motor Gasoline Blending Components	0	0	7,357	-3,705	0	0	14,003	0	-10,351	40,625
Aviation Gasoline Blending Components	0	0	0	-66	0	0	-62	0	-4	383
Finished Petroleum Products	732	1,570,554	193,464	13,021	0	0	0	51,870	1,725,900	456,272
Finished Motor Gasoline	335	763,579	35,850	-21,906	0	0	0	370	777,488	207,401
Finished Leaded Motor Gasoline	220	318,006	19,050	-6,956	0	0	0	370	329,949	101,040
Finished Unleaded Motor Gasoline	115	445,573	16,801	-14,950	0	0	0	0	447,539	106,361
Finished Aviation Gasoline	0	2,583	4	-279	0	0	0	0	2,308	2,570
Naphtha-Type Jet Fuel	0	23,643	2,255	-506	0	0	0	94	25,298	6,719
Kerosene-Type Jet Fuel	0	107,641	7,097	-1,613	0	0	0	556	112,569	33,981
Kerosene	5	14,668	1,145	1,177	0	0	0	6	16,989	6,683
Distillate Fuel Oil	157	310,307	31,825	42,562	0	0	0	5,446	379,405	97,840
Residual Fuel Oil	0	111,297	103,714	1,738	0	0	0	17,436	199,313	47,370
Naphtha < 400 Deg. for Petro. Feed. Use	0	16,423	3,338	-332	0	0	0	906	18,523	2,044
Other Oils > 400 Deg. for Petro. Feed. Use	0	32,465	0	-409	0	0	0	1,671	30,385	2,166
Special Naphthas	-50	6,807	4,980	-82	0	0	0	223	11,433	3,235
Lubricants	0	19,260	1,327	1,056	0	0	0	1,815	19,827	11,019
Waxes	0	1,723	148	127	0	0	0	151	1,847	650
Petroleum Coke	0	54,176	0	-212	0	0	0	23,034	30,930	5,693
Asphalt and Road Oil	0	31,283	53	-7,829	0	0	0	43	23,465	26,621
Still Gas	0	66,812	0	0	0	0	0	0	66,812	0
Miscellaneous Products	285	7,887	1,728	-471	0	0	0	120	9,309	2,280
Total	1,251,995	1,613,821	651,803	-11,743	47,826	140	1,547,331	80,400	1,925,831	1,464,843

---

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, April 1984 (Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	**E 8,688**	**0**	**3,417**	**-565**	**590**	(s)	**11,893**	**172**	**64**
Natural Gas Liquids and LRGs	**1,610**	**384**	**174**	**-202**	**0**	**0**	**431**	**57**	**1,479**
Pentanes Plus	282	0	19	-32	0	0	178	3	89
Liquefied Petroleum Gases	1,327	384	155	-170	0	0	253	54	1,389
Ethane	503	24	58	5	0	0	2	6	581
Propane	525	281	49	-157	0	0	4	29	664
Normal Butane	199	80	29	-26	0	0	135	16	132
Isobutane	100	-1	19	8	0	0	111	3	12
Other Liquids	**43**	**0**	**396**	**-158**	**0**	**0**	**449**	**0**	**-168**
Other Hydrocarbons and Alcohol	43	0	0	(s)	0	0	43	0	0
Unfinished Oils	0	0	326	-153	0	0	305	0	-132
Motor Gasoline Blending Components	0	0	70	-6	0	0	100	0	-36
Aviation Gasoline Blending Components	0	0	0	1	0	0	1	0	0
Finished Petroleum Products	**6**	**12,967**	**1,332**	**231**	**0**	**0**	**0**	**427**	**14,110**
Finished Motor Gasoline	3	6,525	308	-153	0	0	0	(s)	6,682
Finished Leaded Motor Gasoline	2	2,744	168	-86	0	0	0	(s)	2,827
Finished Unleaded Motor Gasoline	1	3,782	140	-68	0	0	0	0	3,854
Finished Aviation Gasoline	0	21	(s)	5	0	0	0	0	26
Naphtha-Type Jet Fuel	0	197	45	0	0	0	0	1	242
Kerosene-Type Jet Fuel	0	865	50	-3	0	0	0	5	907
Kerosene	0	74	(s)	38	0	0	0	(s)	112
Distillate Fuel Oil	1	2,346	220	393	0	0	0	32	2,929
Residual Fuel Oil	0	840	637	9	0	0	0	130	1,357
Naphtha < 400 Deg. for Petro. Feed. Use	0	142	2	1	0	0	0	9	135
Other Oils > 400 Deg. for Petro. Feed. Use	0	274	0	-7	0	0	0	18	249
Special Naphthas	0	59	36	-6	0	0	0	2	87
Lubricants	0	182	8	5	0	0	0	15	181
Waxes	0	15	1	1	0	0	0	1	15
Petroleum Coke	0	455	0	(s)	0	0	0	212	242
Asphalt and Road Oil	0	334	(s)	-47	0	0	0	(s)	286
Still Gas	0	573	0	0	0	0	0	0	573
Miscellaneous Products	2	66	24	-5	0	0	0	1	87
Total	**10,347**	**13,351**	**5,319**	**-694**	**590**	(s)	**12,773**	**655**	**15,484**

---

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - April 1984
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E **8,697**	**0**	**3,216**	**-184**	**395**	**1**	**11,873**	**186**	**64**
Natural Gas Liquids and LRGs	**1,598**	**358**	**262**	**115**	**0**	**0**	**497**	**49**	**1,786**
Pentanes Plus	282	0	36	-1	0	0	198	3	117
Liquefied Petroleum Gases	1,316	358	226	116	0	0	300	47	1,669
Ethane	502	25	92	1	0	0	2	5	612
Propane	519	274	74	80	0	0	4	28	915
Normal Butane	199	59	36	22	0	0	177	11	129
Isobutane	96	-1	24	13	0	0	116	3	13
Other Liquids	**46**	**0**	**310**	**-136**	**0**	**0**	**417**	**0**	**-197**
Other Hydrocarbons and Alcohol	46	0	0	(s)	0	0	46	0	0
Unfinished Oils	0	0	250	-105	0	0	256	0	-112
Motor Gasoline Blending Components	0	0	61	-31	0	0	116	0	-86
Aviation Gasoline Blending Components	0	0	0	-1	0	0	-1	0	(s)
Finished Petroleum Products	**6**	**12,980**	**1,599**	**108**	**0**	**0**	**0**	**429**	**14,264**
Finished Motor Gasoline	3	6,311	296	-181	0	0	0	3	6,426
Finished Leaded Motor Gasoline	2	2,628	157	-57	0	0	0	3	2,727
Finished Unleaded Motor Gasoline	1	3,682	139	-124	0	0	0	0	3,699
Finished Aviation Gasoline	0	21	(s)	-2	0	0	0	0	19
Naphtha-Type Jet Fuel	0	195	19	-4	0	0	0	1	209
Kerosene-Type Jet Fuel	0	890	59	-13	0	0	0	5	930
Kerosene	(s)	121	9	10	0	0	0	(s)	140
Distillate Fuel Oil	1	2,565	263	352	0	0	0	45	3,136
Residual Fuel Oil	0	920	857	14	0	0	0	144	1,647
Naphtha < 400 Deg. for Petro. Feed. Use	0	136	28	-3	0	0	0	7	153
Other Oils > 400 Deg. for Petro. Feed. Use	0	268	0	-3	0	0	0	14	251
Special Naphthas	(s)	56	41	-1	0	0	0	2	94
Lubricants	0	159	11	9	0	0	0	15	164
Waxes	0	14	1	1	0	0	0	1	15
Petroleum Coke	0	448	0	-2	0	0	0	190	256
Asphalt and Road Oil	0	259	(s)	-65	0	0	0	(s)	194
Still Gas	0	552	0	0	0	0	0	0	552
Miscellaneous Products	2	65	14	-4	0	0	0	1	77
Total	**10,347**	**13,337**	**5,387**	**-97**	**395**	**1**	**12,788**	**664**	**15,916**

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 6. PAD District I, Supply and Disposition of Crude Oil and Petroleum Products, April 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 1,947	0	18,710	-1,061	1,381	3,425	0	24,402	0	0	15,556
Natural Gas Liquids and LRGs	941	1,229	878	-29	0	1,807	0	234	40	4,552	2,801
Liquefied Petroleum Gases	833	1,229	424	-18	0	1,807	0	192	40	4,043	2,742
Pentanes Plus	108	0	454	-11	0	0	0	42	0	509	59
Other Liquids	16	0	4,402	790	0	1,491	0	7,031	0	-332	18,255
Other Hydrocarbons and Alcohol	16	0	0	4	0	0	0	20	0	0	27
Unfinished Oils	0	0	2,938	876	0	1,505	0	6,567	0	-1,248	13,430
Motor Gasoline Blending Components	0	0	1,463	-113	0	-14	0	421	0	915	4,798
Aviation Gasoline Blending Components	0	0	0	23	0	0	0	23	0	0	0
Finished Petroleum Products	64	31,938	30,326	7,570	0	66,807	0	0	331	136,374	137,890
Finished Motor Gasoline	64	16,146	7,700	-1,530	0	41,926	0	0	1	64,305	62,079
Finished Leaded Motor Gasoline	37	5,432	3,960	-267	0	15,069	0	0	1	24,229	28,745
Finished Unleaded Motor Gasoline	27	10,714	3,741	-1,263	0	26,857	0	0	0	40,076	33,334
Finished Aviation Gasoline	0	31	1	61	0	192	0	0	0	285	401
Naphtha-Type Jet Fuel	0	229	89	235	0	435	0	0	0	988	718
Kerosene-Type Jet Fuel	0	357	1,382	20	0	8,867	0	0	79	10,548	7,718
Kerosene	0	198	5	514	0	196	0	0	2	911	3,003
Distillate Fuel Oil	0	6,327	5,220	7,467	0	13,221	0	0	1	32,234	29,835
Residual Fuel Oil	0	2,354	15,679	1,735	0	610	0	0	0	20,378	22,709
Naphtha and Other Oils for Petro. Feed.	0	331	11	-29	0	14	0	0	71	256	336
Special Naphthas	0	33	62	-91	0	378	0	0	16	367	705
Lubricants	0	756	161	100	0	872	0	0	128	1,761	3,028
Waxes	0	75	9	0	0	3	0	0	5	81	115
Petroleum Coke	0	904	0	83	0	0	0	0	9	978	789
Asphalt and Road Oil	0	2,538	2	-802	0	130	0	0	3	1,864	5,944
Still Gas	0	1,324	0	0	0	0	0	0	0	1,324	0
Miscellaneous Products	0	335	5	-193	0	-37	0	0	15	95	510
Total	2,968	33,167	54,316	7,270	1,381	73,530	0	31,667	371	140,593	174,502

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 7. PAD District II, Supply and Disposition of Crude Oil and Petroleum Products, April 1984
(Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 31,173	**0**	**18,009**	**-3,139**	**32,315**	**2,807**	**-4**	**80,919**	**250**	**0**	**77,461**
Natural Gas Liquids and LRGs	**9,451**	**2,337**	**3,138**	**-1,202**	**0**	**582**	**0**	**3,902**	**562**	**9,842**	**30,737**
Liquefied Petroleum Gases	8,080	2,337	3,138	-1,305	0	726	0	2,512	478	9,986	27,542
Pentanes Plus	1,371	0	0	103	0	-144	0	1,390	84	-144	3,195
Other Liquids	**233**	**0**	**253**	**-523**	**0**	**194**	**0**	**152**	**0**	**5**	**27,821**
Other Hydrocarbons and Alcohol	233	0	0	3	0	0	0	236	0	0	110
Unfinished Oils	0	0	243	-627	0	179	0	-631	0	426	19,630
Motor Gasoline Blending Components	0	0	10	132	0	15	0	578	0	-421	7,859
Aviation Gasoline Blending Components	0	0	0	-31	0	0	0	-31	0	0	222
Finished Petroleum Products	**16**	**86,376**	**866**	**2,953**	**0**	**20,266**	**0**	**0**	**315**	**110,162**	**125,472**
Finished Motor Gasoline	0	50,354	178	-414	0	13,868	0	0	1	63,985	63,543
Finished Leaded Motor Gasoline	0	22,161	117	427	0	7,489	0	0	1	30,193	32,141
Finished Unleaded Motor Gasoline	0	28,193	61	-841	0	6,379	0	0	0	33,792	31,402
Finished Aviation Gasoline	0	9	0	29	0	117	0	0	0	155	652
Naphtha-Type Jet Fuel	0	1,017	0	-130	0	35	0	0	0	922	1,554
Kerosene-Type Jet Fuel	0	3,932	0	-165	0	1,321	0	0	0	5,088	7,940
Kerosene	0	225	0	273	0	8	0	0	0	506	1,485
Distillate Fuel Oil	0	17,480	308	3,317	0	4,535	0	0	(s)	25,639	30,180
Residual Fuel Oil	0	1,780	251	515	0	-351	0	0	0	2,195	3,549
Naphtha and Other Oils for Petro. Feed.	0	874	17	21	0	33	0	0	45	900	168
Special Naphthas	0	453	70	-70	0	119	0	0	16	557	546
Lubricants	0	832	10	-14	0	387	0	0	45	1,170	2,017
Waxes	0	38	4	-3	0	0	0	0	(s)	39	70
Petroleum Coke	0	3,181	0	-35	0	0	0	0	204	2,942	1,315
Asphalt and Road Oil	0	2,370	0	-476	0	171	0	0	1	2,064	12,190
Still Gas	0	3,573	0	0	0	0	0	0	0	3,573	0
Miscellaneous Products	16	258	29	105	0	23	0	0	2	429	263
Total	**40,873**	**88,713**	**22,267**	**-1,911**	**32,315**	**23,849**	**-4**	**84,973**	**1,128**	**120,009**	**261,491**

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 8. PAD District III, Supply and Disposition of Crude Oil and Petroleum Products, April 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 125,280	0	59,768	-14,474	-10,524	10,593	2	170,618	0	23	557,993
Natural Gas Liquids and LRGs	**34,298**	**6,518**	**384**	**-4,820**	**0**	**-985**	**0**	**7,388**	**852**	**27,155**	**66,411**
Liquefied Petroleum Gases	28,525	6,518	364	-3,829	0	-1,333	0	3,855	852	25,538	61,058
Pentanes Plus	5,773	0	19	-991	0	348	0	3,533	0	1,616	5,353
Other Liquids	**537**	**0**	**5,603**	**-4,445**	**0**	**-1,453**	**0**	**4,435**	**0**	**-4,193**	**75,551**
Other Hydrocarbons and Alcohol	537	0	0	3	0	0	0	540	0	0	96
Unfinished Oils	0	0	5,551	-4,392	0	-1,452	0	1,871	0	-2,164	57,494
Motor Gasoline Blending Components	0	0	52	-103	0	-1	0	1,977	0	-2,029	17,847
Aviation Gasoline Blending Components	0	0	0	47	0	0	0	47	0	0	114
Finished Petroleum Products	**98**	**184,159**	**6,582**	**-439**	**0**	**-90,605**	**0**	**0**	**5,028**	**94,768**	**121,272**
Finished Motor Gasoline	7	90,972	564	-1,324	0	-58,020	0	0	(s)	32,199	54,684
Finished Leaded Motor Gasoline	7	37,418	564	-2,122	0	-23,497	0	0	(s)	12,370	26,201
Finished Unleaded Motor Gasoline	0	53,554	0	798	0	-34,523	0	0	0	19,829	28,483
Finished Aviation Gasoline	0	380	0	15	0	-323	0	0	0	72	887
Naphtha-Type Jet Fuel	0	2,611	1,275	-26	0	-638	0	0	31	3,191	2,196
Kerosene-Type Jet Fuel	0	13,638	0	207	0	-10,883	0	0	0	2,962	11,627
Kerosene	0	1,489	0	451	0	-204	0	0	(s)	1,736	1,874
Distillate Fuel Oil	41	31,670	652	1,139	0	-18,096	0	0	155	15,250	23,015
Residual Fuel Oil	0	10,292	2,422	-1,012	0	-259	0	0	928	10,515	10,919
Naphtha and Other Oils for Petro. Feed.	0	10,445	27	-149	0	-47	0	0	577	9,700	3,090
Special Naphthas	0	1,173	932	-2	0	-497	0	0	33	1,573	1,675
Lubricants	0	3,416	1	193	0	-1,373	0	0	244	1,993	4,633
Waxes	0	259	22	14	0	-3	0	0	28	264	410
Petroleum Coke	0	5,749	0	-245	0	0	0	0	3,025	2,480	1,726
Asphalt and Road Oil	0	2,775	0	351	0	-301	0	0	1	2,824	3,393
Still Gas	0	8,099	0	0	0	0	0	0	0	8,099	0
Miscellaneous Products	50	1,191	688	-51	0	39	0	0	5	1,912	1,143
Total	**160,213**	**190,677**	**72,337**	**-24,178**	**-10,524**	**-82,450**	**2**	**182,441**	**5,880**	**117,752**	**821,227**

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 9. PAD District IV, Supply and Disposition of Crude Oil and Petroleum Products, April 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 17,028	0	1,167	-72	-5,357	0	0	12,758	0	8	14,118
Natural Gas Liquids and LRGs	2,693	157	456	-18	0	-1,404	0	365	0	1,519	1,248
Liquefied Petroleum Gases	1,834	157	360	14	0	-1,200	0	214	0	951	1,016
Pentanes Plus	859	0	96	-32	0	-204	0	151	0	568	232
Other Liquids	0	0	0	-134	0	0	0	-305	0	171	5,391
Other Hydrocarbons and Alcohol	0	0	0	0	0	0	0	0	0	0	0
Unfinished Oils	0	0	0	-307	0	0	0	-521	0	214	2,836
Motor Gasoline Blending Components	0	0	0	173	0	0	0	216	0	-43	2,555
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	12	13,052	213	-235	0	-160	0	0	6	12,876	14,393
Finished Motor Gasoline	8	6,782	77	59	0	-183	0	0	0	6,743	6,207
Finished Leaded Motor Gasoline	8	3,983	72	54	0	-274	0	0	0	3,843	3,946
Finished Unleaded Motor Gasoline	0	2,799	5	5	0	91	0	0	0	2,900	2,261
Finished Aviation Gasoline	0	19	(s)	-2	0	14	0	0	0	31	60
Naphtha-Type Jet Fuel	0	369	0	-13	0	-154	0	0	0	202	367
Kerosene-Type Jet Fuel	0	684	0	-39	0	403	0	0	0	1,048	862
Kerosene	0	10	0	6	0	0	0	0	0	16	25
Distillate Fuel Oil	0	3,476	121	101	0	-240	0	0	(s)	3,457	3,302
Residual Fuel Oil	0	320	14	-22	0	0	0	0	0	312	516
Naphtha and Other Oils for Petro. Feed.	0	0	0	-2	0	0	0	0	1	-3	3
Special Naphthas	0	2	(s)	-1	0	0	0	0	2	-1	9
Lubricants	0	24	(s)	1	0	0	0	0	1	24	62
Waxes	0	17	0	0	0	0	0	0	0	17	0
Petroleum Coke	0	270	0	-4	0	0	0	0	1	265	166
Asphalt and Road Oil	0	649	0	-319	0	0	0	0	1	329	2,800
Still Gas	0	400	0	0	0	0	0	0	0	400	0
Miscellaneous Products	4	30	(s)	0	0	0	0	0	0	34	14
Total	19,733	13,209	1,835	-459	-5,357	-1,564	0	12,818	6	14,574	35,150

---

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 10. PAD District V, Supply and Disposition of Crude Oil and Petroleum Products, April 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 85,215	0	4,860	1,784	-130	-16,825	10	68,102	4,897	1,895	79,369
Natural Gas Liquids and LRGs	902	1,281	374	19	0	0	0	1,040	245	1,291	1,372
Liquefied Petroleum Gases	540	1,281	374	33	0	0	0	817	245	1,166	1,323
Pentanes Plus	362	0	0	-14	0	0	0	223	0	125	49
Other Liquids	502	0	1,612	-416	0	-232	0	2,160	0	-694	34,487
Other Hydrocarbons and Alcohol	502	0	0	-1	0	0	0	501	0	0	5
Unfinished Oils	0	0	1,048	-141	0	-232	0	1,864	0	-1,189	26,869
Motor Gasoline Blending Components	0	0	563	-254	0	0	0	-185	0	494	7,566
Aviation Gasoline Blending Components	0	0	0	-20	0	0	0	-20	0	0	47
Finished Petroleum Products	0	73,479	1,976	-2,918	0	3,692	0	0	7,122	69,107	57,245
Finished Motor Gasoline	0	31,502	707	-1,394	0	2,409	0	0	7	33,217	20,888
Finished Leaded Motor Gasoline	0	13,313	325	-660	0	1,213	0	0	7	14,184	10,007
Finished Unleaded Motor Gasoline	0	18,189	382	-734	0	1,196	0	0	0	19,033	10,881
Finished Aviation Gasoline	0	193	0	49	0	0	0	0	0	242	570
Naphtha-Type Jet Fuel	0	1,691	0	-66	0	322	0	0	0	1,947	1,884
Kerosene-Type Jet Fuel	0	7,349	111	-103	0	292	0	0	70	7,579	5,834
Kerosene	0	284	0	-92	0	0	0	0	(s)	192	296
Distillate Fuel Oil	0	11,423	308	-220	0	580	0	0	802	11,289	11,508
Residual Fuel Oil	0	10,449	755	-947	0	0	0	0	2,958	7,299	9,677
Naphtha and Other Oils for Petro. Feed.	0	825	0	-31	0	0	0	0	123	671	613
Special Naphthas	0	120	14	-15	0	0	0	0	2	117	300
Lubricants	0	436	80	-119	0	114	0	0	39	472	1,279
Waxes	0	59	(s)	4	0	0	0	0	4	60	55
Petroleum Coke	0	3,536	0	188	0	0	0	0	3,114	610	1,697
Asphalt and Road Oil	0	1,675	0	-175	0	0	0	0	1	1,499	2,294
Still Gas	0	3,783	0	0	0	0	0	0	0	3,783	0
Miscellaneous Products	0	154	2	3	0	-25	0	0	4	130	350
Total	86,619	74,760	8,823	-1,531	-130	-13,365	10	71,302	12,265	71,599	172,473

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 11. Production of Crude Oil (Including Lease Condensate) by PAD District and State, for the Most Currently Available Month,[1] February 1984 (Thousand Barrels)

PAD District and State	Production	
	Total	Daily Average
PAD District I		
Florida	1,225	42
New York	E 67	E 2
Pennsylvania	E 339	E 12
Virginia	E 3	E 0
West Virginia	324	11
Adjustment 2	174	6
Total PAD District I	E 2,132	E 74
PAD District II		
Illinois	2,032	70
Indiana	414	14
Kansas	6,144	212
Kentucky	598	21
Michigan	2,356	81
Missouri	E 15	E 1
Nebraska	504	17
North Dakota	4,154	143
Ohio	E 1,157	E 40
Oklahoma	14,343	495
South Dakota	95	3
Tennessee	E 69	E 2
Adjustment 2	-1,515	-52
Total PAD District II	**E30,366**	**E1,047**
PAD District III		
Alabama	1,578	54
Arkansas	E 1,459	E 50
Louisiana		
Gulf Coast	E 37,876	E 1,306
Rest of State	2,643	91
Total Louisiana	E 40,519	E 1,397
Mississippi	2,715	94
New Mexico		
Northwestern	562	19
Southeastern	5,737	198
Total New Mexico	6,299	217
Texas		
TRRC District 01	2,038	70
TRRC District 02	3,124	108
TRRC District 03	E 9,975	E 344
TRRC District 04	2,277	79
TRRC District 05	657	23
TRRC District 06, excluding East Texas	3,326	115
TRRC District 07B	2,886	100
TRRC District 07C	2,867	99
TRRC District 08	18,608	642
TRRC District 08A	17,299	597
TRRC District 09	3,215	111
TRRC District 10	1,836	63
East Texas	3,979	137
Total Texas	E 72,087	E 2,486
Adjustment 2	-2,973	-103
Total PAD District III	**E121,684**	**E4,196**
PAD District IV		
Colorado	2,243	77
Montana	E 2,199	E 76
Utah	E 2,239	E 77
Wyoming	E 9,425	E 325
Adjustment 2	-31	-1
Total PAD District IV	**E16,075**	**E554**
PAD District V		
Alaska		
South Alaska	1,811	62
North Slope	48,889	1,686
Adjustment for Alaska2	-228	-8
Total Alaska	50,472	1,740
Arizona	20	1
California		
Central Coastal	6,079	210
East Central	19,901	686
North	15	1
South	6,288	217
Total California	32,283	1,113
Nevada	E 99	E 3
Adjustment for Arizona, California, and Nevada2	-90	-3
Total PAD District V	**E82,784**	**E2,855**
United States Total	**E253,041**	**E8,726**

See footnotes at end of table.

---

[1] Includes the following offshore production (thousand barrels):
Alaska: State - 1,588;
California: Federal - 2,437, State - 2,970;
Louisiana: Federal - 25,929, State - 2,281;
Texas: Federal - E1,713, State - 142;
U.S. Total - 37,060

[2] These adjustments are used to reconcile the national and PADD level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PADD level figures published in a previous issue. Final data at the State, PAD District and national levels will be published without adjustments in the Petroleum Supply Annual.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

E = Estimated.

- Data not available.

Table 12. Natural Gas Processing Plant Production of Petroleum Products by PAD District,[1] April 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Natural Gas Liquids	378	563	941	4	1,825	500	7,122	9,451	19,368	2,740	7,593	659	3,938	34,298	2,693	902	48,285
Pentanes Plus	37	71	108	1	232	122	1,016	1,371	3,353	205	1,355	178	682	5,773	859	362	8,473
Liquefied Petroleum Gases	341	492	833	3	1,593	378	6,106	8,080	16,015	2,535	6,238	481	3,256	28,525	1,834	540	39,812
Ethane	109	150	259	0	701	5	2,581	3,287	6,466	971	2,770	72	1,020	11,299	240	3	15,088
Propane	141	232	373	2	547	220	2,353	3,122	6,113	1,108	2,101	203	1,358	10,883	1,029	333	15,740
Normal Butane	71	80	151	1	191	127	753	1,072	2,452	247	723	141	594	4,157	456	146	5,982
Isobutane	20	30	50	0	154	26	419	599	984	209	644	65	284	2,186	109	58	3,002
Finished Petroleum Products	64	0	64	0	2	0	14	16	29	49	3	12	5	98	12	0	190
Finished Motor Gasoline	64	0	64	0	0	0	0	0	7	0	0	0	0	7	8	0	79
Finished Leaded Motor Gasoline	37	0	37	0	0	0	0	0	7	0	0	0	0	7	8	0	52
Finished Unleaded Motor Gasoline	27	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	27
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	0	0	0	0	0	0	0	0	41	0	0	0	41	0	0	41
Special Naphthas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	2	0	14	16	22	8	3	12	5	50	4	0	70
Total Production	442	563	1,005	4	1,827	500	7,136	9,467	19,397	2,789	7,596	671	3,943	34,396	2,705	902	48,475

---

[1] Production represents quantity of natural gas processing plant output less input to fractionating facilities.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 13. Refinery Input of Crude Oil and Petroleum Products by PAD District, April 1984 (Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil (including lease condensate)	21,595	2,807	24,402	1,704	51,900	8,245	19,070	80,919	14,841	84,283	63,856	5,285	2,353	170,618	12,758	68,102	356,799
Pentanes Plus	42	0	42	0	524	129	737	1,390	979	1,904	503	90	57	3,533	151	223	5,339
Liquefied Petroleum Gases	141	51	192	84	1,515	224	689	2,512	487	1,401	1,792	116	59	3,855	214	817	7,590
Ethane	0	0	0	0	0	0	0	0	0	0	69	0	0	69	0	0	69
Propane	0	0	0	0	77	3	3	83	0	1	35	0	0	36	5	1	125
Normal Butane	11	51	62	28	791	149	305	1,273	138	836	993	18	23	2,008	170	543	4,056
Isobutane	130	0	130	56	647	72	381	1,156	349	564	695	98	36	1,742	39	273	3,340
Other Liquids																	
Other Hydrocarbons and Alcohol	20	0	20	0	230	0	6	236	16	417	103	0	4	540	0	501	1,297
Unfinished Oil (net)	6,586	-19	6,567	7	-729	-4	95	-631	362	1,931	-614	131	61	1,871	-521	1,864	9,150
Motor Gasoline Blending Components (net)	474	-53	421	5	433	-128	268	578	-102	-579	2,630	41	-13	1,977	216	-185	3,007
Aviation Gasoline Blending Components (net)	23	0	23	0	1	0	-32	-31	0	1	46	0	0	47	0	-20	19
Total Input to Refineries	28,881	2,786	31,667	1,800	53,874	8,466	20,833	84,973	16,583	89,358	68,316	5,663	2,521	182,441	12,818	71,302	383,201
Crude Oil Distillation																	
Gross Input (daily average)	723	94	817	57	1,743	282	645	2,726	500	2,906	2,142	178	79	5,805	430	2,282	12,059
Operable Capacity (daily average)	1,404	174	1,578	66	2,329	304	787	3,486	604	3,842	2,539	294	109	7,387	557	3,106	16,114
Operating Ratio (percent)[1]	51.5	53.6	51.7	86.1	74.8	92.6	81.9	78.2	82.8	75.7	84.4	60.5	72.2	78.6	77.2	73.5	74.8
Crude Oil Qualities																	
Sulfur Content, Weighted Average (percent)	1.00	.40	.93	.50	.88	1.65	.61	.89	.59	.98	.95	1.43	.71	.94	.90	1.04	.95
API Gravity, Weighted Average	29.70	40.79	30.89	37.02	36.27	30.95	37.94	36.14	37.52	35.05	33.10	32.19	39.23	34.49	35.44	25.46	32.94
Operable Capacity (daily average)	1,404	174	1,578	66	2,329	304	787	3,486	604	3,842	2,539	294	109	7,387	557	3,106	16,114
Operating	920	110	1,030	66	2,193	301	731	3,291	579	3,477	2,362	235	107	6,759	480	2,861	14,422
Idle	484	64	548	0	136	3	56	195	25	365	176	59	2	628	77	245	1,692

[1] Represents gross input divided by operable capacity.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 14. Refinery Production of Petroleum Products by PAD District, April 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	1,199	30	1,229	37	1,712	237	351	2,337	227	2,842	3,268	74	107	6,518	157	1,281	11,522
For Petrochemical Feedstock Use	474	0	474	0	215	0	43	258	47	1,155	1,755	2	0	2,959	11	186	3,888
For Other Uses	725	30	755	37	1,497	237	308	2,079	180	1,687	1,513	72	107	3,559	146	1,095	7,634
Ethane	4	0	4	0	0	0	0	0	0	702	16	0	1	719	0	0	723
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	261	1	0	0	262	0	0	262
For Other Uses	4	0	4	0	0	0	0	0	0	441	15	0	1	457	0	0	461
Propane	991	30	1,021	37	1,678	234	461	2,410	245	2,096	1,426	65	69	3,901	169	918	8,419
For Petrochemical Feedstock Use	380	0	380	0	215	0	43	258	47	769	213	0	0	1,029	0	171	1,838
For Other Uses	611	30	641	37	1,463	234	418	2,152	198	1,327	1,213	65	69	2,872	169	747	6,581
Normal Butane	204	0	204	0	34	3	-110	-73	-18	83	1,826	9	37	1,937	-23	367	2,412
For Petrochemical Feedstock Use	94	0	94	0	0	0	0	0	0	164	1,541	2	0	1,707	0	19	1,820
For Other Uses	110	0	110	0	34	3	-110	-73	-18	-81	285	7	37	230	-23	348	592
Isobutane for Petro. Feed. Use	0	0	0	0	0	0	0	0	0	-39	0	0	0	-39	11	-4	-32
Finished Motor Gasoline	15,100	1,046	16,146	1,090	32,385	4,675	12,204	50,354	8,917	43,858	35,230	1,911	1,056	90,972	6,782	31,502	195,756
Finished Leaded Motor Gasoline	4,939	493	5,432	496	12,697	2,350	6,618	22,161	4,285	17,544	14,045	985	559	37,418	3,983	13,313	82,307
Finished Unleaded Motor Gasoline	10,161	553	10,714	594	19,688	2,325	5,586	28,193	4,632	26,314	21,185	926	497	53,554	2,799	18,189	113,449
Finished Aviation Gasoline	31	0	31	0	1	0	8	9	115	128	137	0	0	380	19	193	632
Naphtha-Type Jet Fuel	181	48	229	47	488	127	355	1,017	933	510	583	165	420	2,611	369	1,691	5,917
Kerosene-Type Jet Fuel	357	0	357	0	2,928	301	703	3,932	842	5,775	6,933	4	84	13,638	684	7,349	25,960
Kerosene	121	77	198	78	167	11	-31	225	10	574	895	7	3	1,489	10	284	2,206
Distillate Fuel Oil	5,600	727	6,327	375	10,054	2,222	4,829	17,480	3,579	14,756	11,072	1,564	699	31,670	3,476	11,423	70,376
Residual Fuel Oil	2,254	100	2,354	70	1,178	221	311	1,780	817	6,409	2,854	198	14	10,292	320	10,449	25,195
Naphtha < 400 Deg. For Petro. Feed. Use	326	0	326	0	730	0	36	766	120	2,443	325	25	0	2,913	0	241	4,246
Other Oils > 400 Deg. For Petro. Feed. Use	5	0	5	0	108	0	0	108	73	4,735	2,724	0	0	7,532	0	584	8,229
Special Naphthas	11	22	33	0	260	0	193	453	23	986	80	84	0	1,173	2	120	1,781
Lubricants	428	328	756	0	484	0	348	832	22	2,237	776	381	0	3,416	24	436	5,464
Waxes	0	75	75	0	22	0	16	38	4	122	79	54	0	259	17	59	448
Petroleum Coke	886	18	904	28	2,121	527	505	3,181	237	2,616	2,778	107	11	5,749	270	3,536	13,640
Marketable	225	0	225	0	1,171	407	355	1,933	59	1,273	1,958	86	0	3,376	134	2,753	8,421
Catalyst	661	18	679	28	950	120	150	1,248	178	1,343	820	21	11	2,373	136	783	5,219
Asphalt and Road Oil	2,447	91	2,538	94	1,411	239	626	2,370	442	425	864	936	108	2,775	649	1,675	10,007
Still Gas	1,213	111	1,324	58	2,318	316	881	3,573	421	4,652	2,772	192	62	8,099	400	3,783	17,179
For Petrochemical Feedstock Use	106	0	106	0	2	0	0	2	5	517	116	0	0	638	17	146	909
For Other Uses	1,107	111	1,218	58	2,316	316	881	3,571	416	4,135	2,656	192	62	7,461	383	3,637	16,270
Miscellaneous Products	268	67	335	3	164	36	55	258	48	807	298	38	0	1,191	30	154	1,968
Fuel Use	81	24	105	0	0	0	0	0	0	1	200	0	0	201	3	14	323
Non-Fuel Use	187	43	230	3	164	36	55	258	48	806	98	38	0	990	27	140	1,645
Total Production	30,427	2,740	33,167	1,880	56,531	8,912	21,390	88,713	16,830	93,875	71,668	5,740	2,564	190,677	13,209	74,760	400,526
Processing Gain(-) or Loss(+)[1]	-1,546	46	-1,500	-80	-2,657	-446	-557	-3,740	-247	-4,517	-3,352	-77	-43	-8,236	-391	-3,458	-17,325

[1] Represents the arithmetic difference between input and output.

Note: See Explanatory Note 2.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 15. Percent Refinery Yield of Petroleum Products by PAD District,[1] April 1984

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Finished Motor Gasoline[2]	51.2	37.6	50.0	58.5	58.0	54.0	54.8	56.8	49.6	47.2	47.8	30.7	39.3	47.0	50.7	43.1	48.8
Finished Aviation Gasoline[3]	.0	.0	.0	.0	.0	.0	.2	.0	.8	.1	.1	.0	.0	.2	.2	.3	.2
Liquefied Refinery Gases	4.3	1.1	4.0	2.2	3.3	2.9	1.8	2.9	1.5	3.3	5.2	1.4	4.4	3.8	1.3	1.8	3.1
Naphtha-Type Jet Fuel	.6	1.7	.7	2.7	1.0	1.5	1.9	1.3	6.1	.6	.9	3.0	17.4	1.5	3.0	2.4	1.6
Kerosene-Type Jet Fuel	1.3	0	1.2	.0	5.7	3.7	3.7	4.9	5.5	6.7	11.0	.1	3.5	7.9	5.6	10.5	7.1
Kerosene	.4	2.8	.6	4.6	.3	.1	−.2	.3	.1	.7	1.4	.1	.1	.9	.1	.4	.6
Distillate Fuel Oil	19.9	26.1	20.4	21.9	19.6	27.0	25.2	21.8	23.5	17.1	17.5	28.9	29.0	18.4	28.4	16.3	19.2
Residual Fuel Oil	8.0	3.6	7.6	4.1	2.3	2.7	1.6	2.2	5.4	7.4	4.5	3.7	.6	6.0	2.6	14.9	6.9
Naphtha < 400 Deg. F. Petro. Feed. Use	1.2	0	1.1	0	1.4	0	.2	1.0	.8	2.8	.5	.5	0	1.7	0	.3	1.2
Other Oils > 400 Deg. F. Petro. Feed. Use	.0	0	.0	0	.2	0	0	.1	.5	5.5	4.3	0	0	4.4	.0	.8	2.2
Special Naphthas	.0	.8	.1	0	.5	0	1.0	.6	.2	1.1	.1	1.6	0	.7	.0	.2	.5
Lubricants	1.5	11.8	2.4	0	.9	0	1.8	1.0	.1	2.6	1.2	7.0	0	2.0	.2	.6	1.5
Waxes	.0	2.7	.2	0	.0	0	.1	.0	.0	.1	.1	1.0	0	.2	.1	.1	.1
Petroleum Coke	3.1	.6	2.9	1.6	4.1	6.4	2.6	4.0	1.6	3.0	4.4	2.0	.5	3.3	2.2	5.1	3.7
Asphalt and Road Oil	8.7	3.3	8.2	5.5	2.8	2.9	3.3	3.0	2.9	.5	1.4	17.3	4.5	1.6	5.3	2.4	2.7
Still Gas	4.3	4.0	4.3	3.4	4.5	3.8	4.6	4.5	2.8	5.4	4.4	3.5	2.6	4.7	3.3	5.4	4.7
Miscellaneous Products	1.0	2.4	1.1	.2	.3	.4	.3	.3	.3	.9	.5	.7	0	.7	.2	.2	.5
Processing Gain(-) or Loss(+)[4]	−5.5	1.6	−4.8	−4.7	−5.2	−5.4	−2.9	−4.7	−1.6	−5.2	−5.3	−1.4	−1.8	−4.8	−3.2	−4.9	−4.7

---

[1] Based on crude oil input and net reruns of unfinished oils.

[2] Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

[3] Based on finished aviation gasoline output plus net output of aviation gasoline blending components.

[4] Represents the difference between Input and Production.

Note: Total may not equal sum of components due to independent rounding.

Note: See Explanatory 2.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 16. Imports of Crude Oil and Petroleum Products by PAD District, April 1984
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) [1] [2]	18,710	18,009	59,768	1,167	4,860	102,514
Natural Gas Liquids	878	3,138	384	456	374	5,231
Pentanes Plus	454	0	19	96	0	569
Liquefied Petroleum Gases	424	3,138	364	360	374	4,662
Ethane	0	1,728	0	0	0	1,728
Propane	235	887	153	165	39	1,479
Normal Butane	114	314	134	117	201	880
Isobutane	76	209	77	78	134	574
Other Liquids [1]	4,402	253	5,603	0	1,612	11,870
Unfinished Oils [1]	2,938	243	5,551	0	1,048	9,781
Motor Gasoline Blending Components	1,463	10	52	0	563	2,089
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	30,326	866	6,582	213	1,976	39,964
Finished Motor Gasoline	7,700	178	564	77	707	9,227
Finished Leaded Motor Gasoline	3,960	117	564	72	325	5,038
Finished Unleaded Motor Gasoline	3,741	61	0	5	382	4,189
Finished Aviation Gasoline	1	0	0	(s)	0	1
Naphtha-Type Jet Fuel	89	0	1,275	0	0	1,364
Kerosene-Type Jet Fuel	1,382	0	0	0	111	1,493
Bonded Aircraft Fuel	0	0	0	0	0	0
Other	1,382	0	0	0	111	1,493
Kerosene	5	0	0	0	0	5
Distillate Fuel Oil	5,220	308	652	121	308	6,608
Bonded Ships Bunkers	0	0	0	0	0	0
Other	5,220	308	652	121	308	6,608
Residual Fuel Oil	15,679	251	2,422	14	755	19,120
Bonded Ships Bunkers	0	0	0	0	0	0
Other	15,679	251	2,422	14	755	19,120
Naphtha < 400 Deg. for Petro. Feed. Use	11	17	27	0	0	55
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	62	70	932	(s)	14	1,079
Lubricants	161	10	1	(s)	80	251
Waxes	9	4	22	0	(s)	36
Asphalt and Road Oil	2	0	0	0	0	2
Miscellaneous Products	5	29	688	(s)	2	723
Total Imports	54,316	22,267	72,337	1,835	8,823	159,579

---

[1] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[2] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 17. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January - April 1984
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) 1 2	**96,946**	62,771	206,680	3,778	**18,938**	**389,113**
Natural Gas Liquids	4,381	**19,996**	**2,442**	2,334	**2,507**	31,660
Pentanes plus	2,751	0	656	394	510	4,311
Liquefied Petroleum Gases	1,630	19,996	1,787	1,940	1,997	27,349
Ethane	0	11,162	0	0	0	11,162
Propane	1,065	5,588	850	1,016	386	8,906
Normal Butane	339	1,947	596	555	966	4,403
Isobutane	226	1,298	341	370	644	2,879
Other Liquids 1	13,293	1,442	18,391	0	4,440	37,566
Unfinished Oils 1	9,166	1,367	17,457	0	2,218	30,209
Motor Gasoline Blending Components	**4,126**	75	**934**	0	**2,222**	7,357
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	164,343	2,624	20,025	727	5,745	193,464
Finished Motor Gasoline	30,146	414	2,636	217	2,436	35,850
Finished Leaded Motor Gasoline	**15,839**	253	**1,871**	206	**881**	**19,050**
Finished Unleaded Motor Gasoline	14,308	161	765	11	1,556	16,801
Finished Aviation Gasoline	2	0	0	2	0	4
Naphtha-Type Jet Fuel	980	0	1,275	0	0	2,255
Kerosene-Type Jet Fuel	6,858	0	0	0	239	7,097
Bonded Aircraft Fuel	0	0	0	0	0	0
Other	6,858	0	0	0	239	7,097
Kerosene	1,138	0	6	0	(s)	1,145
Distillate Fuel Oil	29,366	509	953	422	574	31,825
Bonded Ships Bunkers	0	0	0	0	0	0
Other	29,366	509	953	422	574	31,825
Residual Fuel Oil	93,017	1,143	7,568	82	1,904	103,714
Bonded Ships Bunkers	0	0	0	0	0	0
Other	93,017	1,143	7,568	82	1,904	103,714
Naphtha < 400 Deg. for Petro. Feed. Use	671	81	2,586	0	0	3,338
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	914	183	3,652	2	230	4,980
Lubricants	841	42	120	1	323	1,327
Waxes	43	17	77	0	11	148
Asphalt and Road Oil	34	16	1	0	3	53
Miscellaneous Products	333	219	1,151	1	24	1,728
Total Imports	278,963	86,833	247,538	6,839	31,630	651,803

---

[1] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[2] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, April 1984 (Thousand Barrels)

Source	Crude Oil[1]	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products[2]	Total Products	Total Petroleum	Total (Daily Average)
							All PAD Districts							
Arab OPEC														
Algeria	6,652	0	0	0	0	0	0	0	1,497	260	0	1,758	8,410	280
Kuwait	272	0	0	0	0	0	0	0	890	0	0	890	1,162	39
Saudi Arabia	9,027	100	473	0	0	0	0	0	0	0	0	573	9,600	320
United Arab Emirates	1,410	0	264	285	0	221	0	0	434	0	249	1,452	2,862	95
Subtotal Arab OPEC	17,360	100	737	285	0	221	0	0	2,821	260	249	4,673	22,033	734
Other OPEC														
Ecuador	1,291	0	0	0	0	0	0	0	149	0	0	149	1,440	48
Gabon	2,142	0	0	0	0	0	0	0	0	0	0	0	2,142	71
Indonesia	4,844	0	748	0	114	5	0	46	883	0	0	1,797	6,640	221
Iran	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nigeria	8,329	0	324	0	0	0	0	0	0	0	0	324	8,653	288
Venezuela	8,319	0	222	0	1,853	615	0	1,825	4,580	11	0	9,106	17,425	581
Subtotal Other OPEC	24,925	0	1,294	0	1,968	620	0	1,871	5,613	11	0	11,376	36,301	1,210
Other														
Angola	2,785	0	0	0	0	0	0	0	0	0	0	0	2,785	93
Australia	598	96	0	0	0	0	0	0	0	0	0	96	694	23
Bahamas	0	0	481	0	0	225	0	710	982	0	254	2,651	2,651	88
Bolivia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brazil	2	0	0	0	520	0	0	0	1,265	0	(s)	1,785	1,787	60
Canada	12,880	4,091	251	10	910	0	5	1,397	573	126	484	7,847	20,727	691
Congo	1,121	0	0	0	0	0	0	0	175	0	0	175	1,297	43
France	0	(s)	0	0	0	0	0	0	0	(s)	1	1	1	(s)
Malaysia	0	0	0	0	4	7	0	4	17	0	0	31	31	1
Mexico	23,350	374	1,406	602	(s)	0	0	2	29	0	21	2,434	25,784	859
Netherlands	0	0	0	47	971	0	0	0	239	220	148	1,627	1,627	54
Netherlands Antilles	0	0	1,010	0	1,400	40	0	829	2,894	0	40	6,211	6,211	207
Norway	3,109	0	0	0	0	451	0	0	0	0	0	451	3,560	119
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0
People's Republic of China	360	0	120	563	0	0	0	0	0	0	0	683	1,043	35
Peru	2	0	373	0	0	0	0	0	288	0	0	661	662	22
Puerto Rico	0	0	63	0	273	0	0	409	0	200	153	1,098	1,098	37
Romania	0	0	252	317	0	0	0	0	0	0	212	781	781	26
Spain	0	0	218	0	0	0	0	0	2	0	(s)	221	221	7
Trinidad and Tobago	2,740	0	0	0	0	0	0	0	0	0	0	0	2,740	91
United Kingdom	8,292	0	0	0	0	0	0	0	0	156	(s)	156	8,449	282
Virgin Islands	0	0	1,842	0	1,476	542	0	1,355	2,482	0	0	7,696	7,696	257
Zaire	661	0	0	0	0	0	0	0	0	0	0	0	661	22
Other Western Hemisphere	0	0	809	0	0	0	0	12	497	43	10	1,371	1,371	46
Other Eastern Hemisphere	4,330	1	922	264	1,706	753	0	20	1,245	63	64	5,038	9,368	312
Subtotal Other	60,229	4,562	7,750	1,804	7,259	2,016	5	4,737	10,686	808	1,388	41,015	101,245	3,375
Total Imports	102,514	4,662	9,781	2,089	9,227	2,857	5	6,608	19,120	1,079	1,637	57,064	159,579	5,319

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, April 1984 (Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfin-ished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
							PAD District I							
Arab OPEC														
Algeria	1,364	0	0	0	0	0	0	0	1,497	0	0	1,497	2,861	95
Saudi Arabia	1,003	100	222	0	0	0	0	0	0	0	0	321	1,325	44
United Arab Emirates	0	0	0	285	0	0	0	0	0	0	0	285	285	9
Subtotal Arab OPEC	2,367	100	222	285	0	0	0	0	1,497	0	0	2,103	4,471	149
Other OPEC														
Ecuador	0	0	0	0	0	0	0	0	149	0	0	149	149	5
Gabon	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Indonesia	548	0	228	0	0	0	0	0	0	0	0	228	776	26
Nigeria	2,027	0	0	0	0	0	0	0	0	0	0	0	2,027	68
Venezuela	1,640	0	0	0	1,853	615	0	1,825	4,580	0	0	8,874	10,514	350
Subtotal Other OPEC	4,216	0	228	0	1,853	615	0	1,825	4,729	0	0	9,251	13,467	449
Other														
Angola	1,333	0	0	0	0	0	0	0	0	0	0	0	1,333	44
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bahamas	0	0	481	0	0	225	0	431	982	0	0	2,119	2,119	71
Brazil	2	0	0	0	520	0	0	0	1,002	0	(s)	1,522	1,524	51
Canada	1,341	323	8	0	231	0	5	969	308	41	273	2,159	3,500	117
Congo	275	0	0	0	0	0	0	0	175	0	0	175	450	15
France	0	(s)	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)	(s)
Mexico	1,801	0	0	597	0	0	0	0	28	0	(s)	625	2,426	81
Netherlands	0	0	0	0	971	0	0	0	239	0	0	1,211	1,211	40
Netherlands Antilles	0	0	1,010	0	836	0	0	470	2,894	0	0	5,209	5,209	174
Norway	1,119	0	0	0	0	89	0	0	0	0	0	89	1,208	40
Peru	2	0	0	0	0	0	0	0	288	0	0	288	290	10
Puerto Rico	0	0	63	0	273	0	0	171	0	0	153	660	660	22
Romania	0	0	252	317	0	0	0	0	0	0	212	781	781	26
Spain	0	0	0	0	0	0	0	0	2	0	0	2	2	(s)
Trinidad and Tobago	472	0	0	0	0	0	0	0	0	0	0	0	472	16
United Kingdom	5,201	0	0	0	0	0	0	0	0	0	(s)	(s)	5,201	173
Virgin Islands	0	0	300	0	1,476	542	0	1,355	2,482	0	0	6,154	6,154	205
Zaire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Western Hemisphere	0	0	374	0	0	0	0	0	497	0	0	871	871	29
Other Eastern Hemisphere	581	1	0	264	1,540	0	0	0	556	21	3	2,386	2,967	99
Subtotal Other	12,127	325	2,489	1,179	5,847	856	5	3,395	9,452	62	642	24,252	36,378	1,213
Total Imports	18,710	424	2,938	1,463	7,700	1,471	5	5,220	15,679	62	642	35,606	54,316	1,811
							PAD District II							
Arab OPEC														
Algeria	1,197	0	0	0	0	0	0	0	0	0	0	0	1,197	40
Subtotal Arab OPEC	1,197	0	0	0	0	0	0	0	0	0	0	0	1,197	40

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, April 1984 (Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
	PAD District II													
Other OPEC														
Ecuador	360	0	0	0	0	0	0	0	0	0	0	0	360	12
Indonesia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nigeria	1,471	0	0	0	0	0	0	0	0	0	0	0	1,471	49
Subtotal Other OPEC	1,831	0	0	0	0	0	0	0	0	0	0	0	1,831	61
Other														
Canada	8,880	3,138	243	10	178	0	0	308	251	70	59	4,257	13,138	438
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	4,247	0	0	0	0	0	0	0	0	0	0	0	4,247	142
Trinidad and Tobago	1,332	0	0	0	0	0	0	0	0	0	0	0	1,332	44
United Kingdom	523	0	0	0	0	0	0	0	0	0	(s)	(s)	523	17
Other Eastern Hemisphere	0	(s)	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Subtotal Other	14,982	3,138	243	10	178	0	0	308	251	70	60	4,258	19,240	641
Total Imports	18,009	3,138	243	10	178	0	0	308	251	70	60	4,258	22,267	742
	PAD District III													
Arab OPEC														
Algeria	3,571	0	0	0	0	0	0	0	0	260	0	260	3,831	128
Kuwait	272	0	0	0	0	0	0	0	890	0	0	890	1,162	39
Saudi Arabia	8,023	0	0	0	0	0	0	0	0	0	0	0	8,023	267
United Arab Emirates	1,410	0	264	0	0	221	0	0	434	0	249	1,167	2,577	86
Subtotal Arab OPEC	13,276	0	264	0	0	221	0	0	1,324	260	249	2,318	15,593	520
Other OPEC														
Ecuador	931	0	0	0	0	0	0	0	0	0	0	0	931	31
Gabon	2,142	0	0	0	0	0	0	0	0	0	0	0	2,142	71
Indonesia	2,046	0	0	0	0	0	0	0	406	0	0	406	2,452	82
Iran	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nigeria	4,831	0	324	0	0	0	0	0	0	0	0	324	5,155	172
Venezuela	6,679	0	222	0	0	0	0	0	0	11	0	233	6,911	230
Subtotal Other OPEC	16,628	0	546	0	0	0	0	0	406	11	0	963	17,591	586
Other														
Angola	1,452	0	0	0	0	0	0	0	0	0	0	0	1,452	48
Bahamas	0	0	0	0	0	0	0	279	0	0	254	533	533	18
Bolivia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0	0	263	0	0	263	263	9
Canada	(s)	0	0	0	0	0	0	0	0	0	44	44	45	1
Congo	846	0	0	0	0	0	0	0	0	0	0	0	846	28
France	0	0	0	0	0	0	0	0	0	0	1	1	1	(s)
Mexico	17,302	364	1,406	5	(s)	0	0	1	0	0	21	1,798	19,100	637
Netherlands	0	0	0	47	0	0	0	0	0	220	148	416	416	14
Netherlands Antilles	0	0	0	0	564	0	0	358	0	0	0	923	923	31
Norway	1,990	0	0	0	0	361	0	0	0	0	0	361	2,352	78
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0

See footnotes at end of table.

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD District III														
Other														
People's Republic of China	360	0	0	0	0	0	0	0	0	0	0	0	360	12
Peru	0	0	373	0	0	0	0	0	0	0	0	373	373	12
Puerto Rico	0	0	0	0	0	0	0	0	0	200	0	200	200	7
Spain	0	0	218	0	0	0	0	0	0	0	(s)	219	219	7
Trinidad and Tobago	936	0	0	0	0	0	0	0	0	0	0	0	936	31
United Kingdom	2,568	0	0	0	0	0	0	0	0	156	0	156	2,724	91
Virgin Islands	0	0	1,542	0	0	0	0	0	0	0	0	1,542	1,542	51
Zaire	661	0	0	0	0	0	0	0	0	0	0	0	661	22
Other Western Hemisphere	0	0	435	0	0	0	0	12	0	43	10	500	500	17
Other Eastern Hemisphere	3,749	0	766	0	0	693	0	1	429	41	30	1,960	5,709	190
Subtotal Other	29,864	364	4,741	52	564	1,054	0	652	692	661	508	9,288	39,153	1,305
Total Imports	59,768	364	5,551	52	564	1,275	0	652	2,422	932	757	12,569	72,337	2,411
PAD District IV														
Other														
Canada	1,167	360	0	0	77	0	0	121	14	(s)	96	669	1,835	61
Other Eastern Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Other	1,167	360	0	0	77	0	0	121	14	(s)	96	669	1,835	61
Total Imports	1,167	360	0	0	77	0	0	121	14	(s)	96	669	1,835	61
PAD District V														
Arab OPEC														
Algeria	520	0	0	0	0	0	0	0	0	0	0	0	520	17
Saudi Arabia	0	0	252	0	0	0	0	0	0	0	0	252	252	8
Subtotal Arab OPEC	520	0	252	0	0	0	0	0	0	0	0	252	772	26
Other OPEC														
Indonesia	2,250	0	521	0	114	5	0	46	477	0	0	1,163	3,412	114
Venezuela	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Other OPEC	2,250	0	521	0	114	5	0	46	477	0	0	1,163	3,412	114
Other														
Australia	598	96	0	0	0	0	0	0	0	0	0	96	694	23
Canada	1,492	269	0	0	423	0	0	0	0	14	12	718	2,210	74
France	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malaysia	0	0	0	0	4	7	0	4	17	0	0	31	31	1
Mexico	0	9	0	0	0	0	0	1	1	0	0	11	11	(s)
Netherlands	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Netherlands Antilles	0	0	0	0	0	40	0	0	0	0	40	79	79	3
People's Republic of China	0	0	120	563	0	0	0	0	0	0	0	683	683	23
Puerto Rico	0	0	0	0	0	0	0	239	0	0	0	239	239	8
United Kingdom	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	0	0	156	0	166	60	0	18	260	0	31	692	692	23
Subtotal Other	2,090	374	276	563	593	106	0	262	278	14	82	2,549	4,638	155
Total Imports	4,860	374	1,048	563	707	111	0	308	755	14	82	3,963	8,823	294

---

1 Includes crude oil imported for storage in the Strategic Petroleum Reserve.
2 Includes aviation gasoline, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.
(s) = Less than 500 barrels or less than 500 barrels per day.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - April 1984 (Thousand Barrels)

Source	Crude Oil [1]	LPG	Unfin-ished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts [2]	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
	All PAD Districts													
Arab OPEC														
Algeria	21,310	0	0	0	434	327	0	1,159	8,858	1,604	1,074	13,456	34,766	287
Iraq	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Kuwait	527	0	0	0	0	0	0	0	1,910	0	0	1,910	2,437	20
Saudi Arabia	40,998	338	523	0	0	0	0	0	1,013	0	(s)	1,844	42,872	354
United Arab Emirates	8,053	0	527	285	0	221	0	0	1,204	0	547	2,783	10,837	90
Subtotal Arab OPEC	70,888	338	1,049	285	434	548	0	1,159	12,985	1,604	1,621	19,993	90,911	751
Other OPEC														
Ecuador	7,234	0	0	0	0	0	0	0	686	0	0	686	7,919	65
Gabon	4,639	0	0	0	0	0	0	0	246	60	0	306	4,945	41
Indonesia	26,078	905	1,652	0	607	62	0	188	2,245	0	48	5,610	31,784	263
Iran	2,071	0	0	0	0	0	0	0	0	0	0	0	2,071	17
Nigeria	30,286	0	878	0	0	0	0	53	90	0	0	1,022	31,308	259
Venezuela	27,709	0	905	301	6,545	1,490	0	5,071	17,039	68	195	31,615	59,324	490
Subtotal Other OPEC	98,017	905	3,435	301	7,152	1,551	0	5,312	20,306	128	243	39,239	137,352	1,135
Other														
Angola	10,430	0	0	0	0	0	0	0	568	0	0	568	10,997	91
Australia	1,264	96	0	0	141	27	0	38	616	0	88	1,006	2,270	19
Bahamas	0	0	4,536	0	0	657	69	3,310	3,796	0	1,843	14,210	14,210	117
Bolivia	260	0	0	0	0	0	0	0	0	0	0	0	260	2
Brazil	2	0	0	0	2,914	0	0	0	2,596	128	23	5,662	5,663	47
Brunei	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	42,640	24,785	1,193	75	2,177	0	28	4,409	3,184	433	1,639	36,560	80,563	666
Congo	3,315	0	0	0	0	0	0	0	742	0	0	742	4,058	34
Egypt	674	0	0	0	0	0	0	0	0	0	0	0	674	6
France	0	(s)	(s)	0	0	0	(s)	0	0	(s)	10	11	11	(s)
Ghana	0	0	0	0	0	0	0	0	119	0	0	119	119	1
Liberia	0	0	0	0	0	0	0	0	1,619	0	0	1,619	1,619	13
Malaysia	0	0	125	0	56	7	0	5	54	0	0	246	246	2
Mexico	82,350	906	4,009	1,804	220	215	0	945	715	(s)	68	8,810	91,233	754
Netherlands	1,044	(s)	0	47	3,755	196	0	5,190	988	256	314	10,746	11,790	97
Netherlands Antilles	0	0	5,320	0	3,631	189	0	829	18,307	0	104	28,381	28,381	235
Norway	11,455	(s)	0	0	0	451	0	130	0	0	0	581	12,035	99
Oman	496	0	0	0	0	0	0	0	967	0	0	967	1,463	12
People's Republic of China	1,035	0	321	2,222	332	0	0	0	0	172	(s)	3,047	4,082	34
Peru	2	0	373	0	0	0	0	0	3,086	0	0	3,459	3,461	29
Puerto Rico	0	0	851	0	1,266	253	0	1,011	0	1,358	749	5,489	5,489	45
Romania	0	0	252	1,736	522	0	0	0	0	0	2,108	4,618	4,618	38
Spain	0	0	218	0	443	825	0	123	776	0	(s)	2,386	2,386	20
Trinidad and Tobago	8,672	0	13	0	0	0	0	0	829	7	0	849	9,521	79
Tunisia	2	0	0	0	0	0	0	0	0	0	0	0	2	(s)
United Kingdom	38,473	191	471	370	1,150	154	0	163	655	156	704	4,013	42,486	351
Virgin Islands	0	0	3,243	0	6,453	2,855	982	7,369	18,341	88	235	39,567	39,567	327
Zaire	3,293	0	0	0	0	0	0	0	0	0	0	0	3,293	27
Other Western Hemisphere	283	127	1,295	0	0	0	6	43	4,610	115	86	6,282	6,565	54

See footnotes at end of table.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January–April
(Thousand Barrels)
(continued)

Source	Crude Oil 1	LPG	Unfin-ished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
							All PAD Districts							
Other														
Other Eastern Hemisphere	14,519	1	3,504	517	5,203	1,424	60	1,788	7,854	536	1,072	21,959	36,478	301
Subtotal Other	220,208	26,106	25,725	6,771	28,264	7,253	1,145	25,353	70,422	3,248	9,044	201,895	423,540	3,500
Total Imports	389,113	27,349	30,209	7,357	35,850	9,352	1,145	31,825	103,714	4,980	10,908	261,127	651,803	5,387
							PAD District I							
Arab OPEC														
Algeria	5,277	0	0	0	434	327	0	1,109	8,858	0	0	10,728	16,005	132
Kuwait	253	0	0	0	0	0	0	0	0	0	0	0	253	2
Saudi Arabia	7,240	338	271	0	0	0	0	0	0	0	(s)	579	7,849	65
United Arab Emirates	0	0	0	285	0	0	0	0	434	0	298	1,017	1,017	8
Subtotal Arab OPEC	12,769	338	271	285	434	327	0	1,109	9,292	0	298	12,325	25,124	208
Other OPEC														
Ecuador	302	0	0	0	0	0	0	0	686	0	0	686	988	8
Gabon	688	0	0	0	0	0	0	0	246	60	0	306	995	8
Indonesia	10,191	0	228	0	0	0	0	0	491	0	0	719	10,910	90
Nigeria	10,089	0	0	0	0	0	0	50	90	0	0	140	10,230	85
Venezuela	6,782	0	0	0	5,534	1,490	0	5,071	16,701	0	29	28,825	35,607	294
Subtotal Other OPEC	28,053	0	228	0	5,534	1,490	0	5,121	18,215	60	29	30,676	58,730	485
Other														
Angola	5,559	0	0	0	0	0	0	0	568	0	0	568	6,127	51
Australia	0	0	0	0	0	0	0	0	549	0	0	549	549	5
Bahamas	0	0	481	0	0	657	69	3,031	3,796	0	180	8,214	8,214	68
Brazil	2	0	0	0	2,213	0	0	0	2,333	0	(s)	4,546	4,548	38
Canada	4,286	974	28	0	840	0	27	3,430	1,959	79	765	8,057	12,388	102
Congo	1,298	0	0	0	0	0	0	0	742	0	0	742	2,040	17
Egypt	0	0	0	0	0	0	0	0	0	0	0	0	0	0
France	0	(s)	0	0	0	0	0	0	0	(s)	1	1	1	(s)
Ghana	0	0	0	0	0	0	0	0	119	0	0	119	119	1
Liberia	0	0	0	0	0	0	0	0	1,619	0	0	1,619	1,619	13
Mexico	8,530	0	0	1,509	0	215	0	740	328	0	(s)	2,792	11,323	94
Netherlands	0	(s)	0	0	3,755	196	0	5,190	988	0	(s)	10,129	10,129	84
Netherlands Antilles	0	0	4,804	0	2,808	150	0	470	18,307	0	7	26,546	26,546	219
Norway	7,787	0	0	0	0	89	0	130	0	0	0	219	8,006	66
Oman	496	0	0	0	0	0	0	0	585	0	0	585	1,081	9
People's Republic of China	675	0	0	0	0	0	0	0	0	0	(s)	(s)	675	6
Peru	2	0	0	0	0	0	0	0	2,825	0	0	2,825	2,826	23
Puerto Rico	0	0	851	0	1,266	253	0	772	0	550	749	4,442	4,442	37
Romania	0	0	252	1,736	522	0	0	0	0	0	2,108	4,618	4,618	38
Spain	0	0	0	0	443	825	0	123	776	0	(s)	2,167	2,167	18
Trinidad and Tobago	1,384	0	13	0	0	0	0	0	829	7	0	849	2,233	18
Tunisia	2	0	0	0	0	0	0	0	0	0	0	0	2	(s)
United Kingdom	20,869	191	471	79	1,023	154	0	163	655	0	277	3,012	23,881	197

See footnotes at end of table.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - April 1984 (Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD District I														
Other														
Virgin Islands	0	0	1,388	0	6,453	2,855	982	7,369	18,303	0	0	37,351	37,351	309
Zaire	2,179	0	0	0	0	0	0	0	0	0	0	0	2,179	18
Other Western Hemisphere	0	127	374	0	0	0	0	32	4,610	0	8	5,151	5,151	43
Other Eastern Hemisphere	3,054	1	4	517	4,854	627	60	1,686	5,620	218	252	13,839	16,893	140
Subtotal Other	56,123	1,293	8,667	3,842	24,178	6,021	1,138	23,136	65,510	854	4,348	138,941	195,110	1,612
Total Imports	96,946	1,630	9,166	4,126	30,146	7,838	1,138	29,366	93,017	914	4,674	181,942	278,963	2,305
PAD District II														
Arab OPEC														
Algeria	2,591	0	0	0	0	0	0	0	0	0	0	0	2,591	21
Saudi Arabia	423	0	0	0	0	0	0	0	0	0	0	0	423	3
United Arab Emirates	519	0	0	0	0	0	0	0	0	0	0	0	519	4
Subtotal Arab OPEC	3,533	0	0	0	0	0	0	0	0	0	0	0	3,533	29
Other OPEC														
Ecuador	685	0	0	0	0	0	0	0	0	0	0	0	685	6
Indonesia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Iran	1,040	0	0	0	0	0	0	0	0	0	0	0	1,040	9
Nigeria	1,998	0	203	0	0	0	0	0	0	0	0	203	2,201	18
Venezuela	417	0	0	0	0	0	0	0	0	0	0	0	417	3
Subtotal Other OPEC	4,140	0	203	0	0	0	0	0	0	0	0	203	4,343	36
Other														
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	31,365	19,996	1,164	75	414	0	0	509	1,143	183	373	23,080	55,222	456
Congo	450	0	0	0	0	0	0	0	0	0	0	0	450	4
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	16,560	0	0	0	0	0	0	0	0	0	0	0	16,560	137
Netherlands	1,044	0	0	0	0	0	0	0	0	0	0	0	1,044	9
Norway	519	0	0	0	0	0	0	0	0	0	0	0	519	4
Trinidad and Tobago	3,433	0	0	0	0	0	0	0	0	0	0	0	3,433	28
United Kingdom	1,727	0	0	0	0	0	0	0	0	0	1	1	1,728	14
Other Western Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	0	(s)	0	0	0	0	0	0	0	0	1	1	1	(s)
Subtotal Other	55,098	19,996	1,164	75	414	0	0	509	1,143	183	374	23,082	78,957	653
Total Imports	62,771	19,996	1,367	75	414	0	0	509	1,143	183	374	23,285	86,833	718

See footnotes at end of table.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - April 1984
(Thousand Barrels)
(continued)

Source	Crude Oil 1	LPG	Unfin-ished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
	PAD District III													
Arab OPEC														
Algeria	12,508	0	0	0	0	0	0	50	0	1,604	1,074	2,728	15,236	126
Iraq	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Kuwait	274	0	0	0	0	0	0	0	1,910	0	0	1,910	2,184	18
Saudi Arabia	33,334	0	0	0	0	0	0	0	1,013	0	0	1,013	34,348	284
United Arab Emirates	7,534	0	527	0	0	221	0	0	770	0	249	1,766	9,301	77
Subtotal Arab OPEC	53,652	0	527	0	0	221	0	50	3,694	1,604	1,323	7,417	61,069	505
Other OPEC														
Ecuador	6,247	0	0	0	0	0	0	0	0	0	0	0	6,247	52
Gabon	3,950	0	0	0	0	0	0	0	0	0	0	0	3,950	33
Indonesia	3,760	905	0	0	0	0	0	0	792	0	48	1,649	5,505	45
Iran	1,032	0	0	0	0	0	0	0	0	0	0	0	1,032	9
Nigeria	18,199	0	675	0	0	0	0	3	0	0	0	678	18,877	156
Venezuela	20,509	0	905	301	765	0	0	0	338	68	167	2,544	23,053	191
Subtotal Other OPEC	53,697	905	1,580	301	765	0	0	3	1,130	68	214	4,871	58,664	485
Other														
Angola	4,871	0	0	0	0	0	0	0	0	0	0	0	4,871	40
Australia	0	0	0	0	0	0	0	0	0	0	87	87	87	1
Bahamas	0	0	4,054	0	0	0	0	279	0	0	1,663	5,996	5,996	50
Bolivia	260	0	0	0	0	0	0	0	0	0	0	0	260	2
Brazil	0	0	0	0	701	0	0	0	263	128	23	1,116	1,116	9
Canada	1	0	0	0	0	0	0	0	0	111	71	182	182	2
Congo	1,567	0	0	0	0	0	0	0	0	0	0	0	1,567	13
Egypt	674	0	0	0	0	0	0	0	0	0	0	0	674	6
France	0	0	(s)	0	0	0	(s)	0	0	0	10	10	10	(s)
Malaysia	0	0	125	0	0	0	0	0	0	0	0	125	125	1
Mexico	57,260	881	4,009	294	220	0	0	195	360	(s)	55	5,942	63,275	523
Netherlands	0	0	0	47	0	0	0	0	0	256	314	617	617	5
Netherlands Antilles	0	0	516	0	823	0	0	358	0	0	30	1,728	1,728	14
Norway	3,149	(s)	0	0	0	361	0	0	0	0	0	361	3,510	29
Oman	0	0	0	0	0	0	0	0	382	0	0	382	382	3
People's Republic of China	360	0	0	0	0	0	0	0	0	0	0	0	360	3
Peru	0	0	373	0	0	0	0	0	262	0	0	634	634	5
Puerto Rico	0	0	0	0	0	0	0	0	0	808	0	808	808	7
Romania	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	218	0	0	0	0	0	0	0	(s)	219	219	2
Trinidad and Tobago	3,855	0	0	0	0	0	0	0	0	0	0	0	3,855	32
United Kingdom	15,877	0	0	291	127	0	0	0	0	156	426	1,000	16,877	139
Virgin Islands	0	0	1,855	0	0	0	0	0	38	88	235	2,216	2,216	18
Zaire	1,114	0	0	0	0	0	0	0	0	0	0	0	1,114	9
Other Western Hemisphere	283	0	921	0	0	0	6	12	0	115	77	1,131	1,414	12
Other Eastern Hemisphere	10,060	0	3,279	0	0	693	0	56	1,441	318	63	5,850	15,910	131
Subtotal Other	99,331	881	15,350	633	1,871	1,054	6	900	2,745	1,980	3,053	28,401	127,805	1,056
Total Imports	206,680	1,787	17,457	934	2,636	1,275	6	953	7,568	3,652	4,590	40,689	247,538	2,046

See footnotes at end of table.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - April 1984 (Thousand Barrels) (continued)

Source	Crude Oil [1]	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products [2]	Total Products	Total Petroleum	Total (Daily Average)
							PAD District IV							
Other														
Canada	3,778	1,940	0	0	217	0	0	422	82	2	398	2,859	6,839	57
Other Eastern Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Other	3,778	1,940	0	0	217	0	0	422	82	2	398	2,859	6,839	57
Total Imports	3,778	1,940	0	0	217	0	0	422	82	2	398	2,859	6,839	57
							PAD District V							
Arab OPEC														
Algeria	934	0	0	0	0	0	0	0	0	0	0	0	934	8
Saudi Arabia	0	0	252	0	0	0	0	0	0	0	0	252	252	2
Subtotal Arab OPEC	934	0	252	0	0	0	0	0	0	0	0	252	1,185	10
Other OPEC														
Indonesia	12,126	0	1,424	0	607	62	0	188	962	0	(s)	3,242	15,369	127
Venezuela	0	0	0	0	246	0	0	0	0	0	0	246	246	2
Subtotal Other OPEC	12,126	0	1,424	0	853	62	0	188	962	0	(s)	3,489	15,615	129
Other														
Australia	1,264	96	0	0	141	27	0	38	67	0	(s)	370	1,634	14
Brunei	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	3,210	1,876	1	0	706	0	(s)	47	0	58	34	2,381	5,931	49
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Malaysia	0	0	0	0	56	7	0	5	54	0	0	121	121	1
Mexico	0	25	0	0	0	0	0	10	28	0	13	76	76	1
Netherlands	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Netherlands Antilles	0	0	0	0	0	40	0	0	0	0	67	107	107	1
People's Republic of China	0	0	321	2,222	332	0	0	0	0	172	0	3,047	3,047	25
Puerto Rico	0	0	0	0	0	0	0	239	0	0	0	239	239	2
United Kingdom	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	1,404	0	221	0	348	105	0	46	793	0	757	2,270	3,675	30
Subtotal Other	5,878	1,997	543	2,222	1,583	178	(s)	386	942	230	871	8,612	14,829	123
Total Imports	18,938	1,997	2,218	2,222	2,436	239	(s)	574	1,904	230	872	12,352	31,630	261

[1] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[2] Includes aviation gasoline, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 20. Exports of Crude Oil and Petroleum Products by PAD District, April 1984
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) [1]	0	250	0	0	4,897	5,147
Natural Gas Liquids	40	562	852	0	245	1,700
Pentanes Plus	0	84	0	0	0	84
Liquefied Petroleum Gases	40	478	852	0	245	1,616
Ethane	(s)	168	0	0	0	168
Propane	15	141	622	0	99	877
Normal Butane	26	84	230	0	147	486
Isobutane	0	84	0	0	0	84
Finished Motor Gasoline	1	1	(s)	0	7	9
Naphtha-Type Jet Fuel	0	0	31	0	0	31
Kerosene-Type Jet Fuel	79	0	0	0	70	148
Kerosene	2	0	(s)	0	(s)	3
Distillate Fuel Oil	1	(s)	155	(s)	802	959
Residual Fuel Oil	0	0	928	0	2,958	3,885
Naphtha < 400 Deg. for Petrochem. Feedstock	71	12	170	1	12	267
Other Oils > 400 Deg. for Petrochem. Feedstock	0	33	407	0	111	551
Special Naphthas	16	16	33	2	2	69
Lubricants	128	45	244	1	39	457
Waxes	5	(s)	28	0	4	38
Petroleum Coke	9	204	3,025	1	3,114	6,352
Asphalt	3	1	1	1	1	7
Miscellaneous Products	15	2	5	0	4	26
Total Product Exports	371	793	5,880	6	7,368	14,419
Total Exports	371	1,128	5,880	6	12,265	19,651

---

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 21. Year-to-Date Exports Of Crude Oil And Petroleum Products By PAD District, January - April 1984 (Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) [1]	0	1,598	(s)	0	20,947	22,545
Natural Gas Liquids	166	2,227	2,881	(s)	711	5,985
Pentanes Plus	0	332	0	0	0	332
Liquefied Petroleum Gases	166	1,895	2,881	(s)	711	5,652
Ethane	(s)	664	(s)	0	0	665
Propane	70	557	2,431	(s)	286	3,343
Normal Butane	96	341	450	(s)	426	1,313
Isobutane	0	0	0	0	0	0
Finished Motor Gasoline	71	2	215	0	82	370
Naphtha-Type Jet Fuel	(s)	0	94	0	0	94
Kerosene-Type Jet Fuel	176	139	0	0	241	556
Kerosene	5	0	1	0	(s)	6
Distillate Fuel Oil	410	56	1,670	(s)	3,310	5,446
Residual Fuel Oil	432	0	7,113	0	9,891	17,436
Naphtha < 400 Deg. for Petrochem. Feedstock	229	32	545	5	95	906
Other Oils > 400 Deg. for Petrochem. Feedstock	(s)	89	1,378	0	204	1,671
Special Naphthas	28	63	126	3	3	223
Lubricants	476	95	1,098	4	143	1,815
Waxes	20	2	116	0	13	151
Petroleum Coke	892	518	12,466	2	9,155	23,034
Asphalt	11	10	12	2	8	43
Miscellaneous Products	62	7	40	0	12	120
Total Product Exports	2,979	2,987	27,754	15	23,868	57,603
Total Exports	2,979	4,837	27,754	15	44,815	80,400

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, April 1984 (Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	(s)	0	0	0	0	0	13	(s)	0	0	(s)	13	(s)
Australia	0	(s)	0	0	0	447	(s)	1	(s)	76	(s)	21	546	18
Bahamas	0	14	1	(s)	0	0	0	1	(s)	0	0	1	16	1
Bahrain	0	0	0	0	(s)	0	(s)	(s)	0	50	0	(s)	50	2
Belgium & Luxembourg	0	(s)	(s)	0	0	0	(s)	34	(s)	1,021	0	(s)	1,056	35
Brazil	0	0	0	0	0	0	(s)	(s)	0	43	0	1	45	1
Cameroon	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Canada	250	480	1	0	200	106	18	119	3	527	2	157	1,863	62
Chile	0	0	0	0	0	0	(s)	1	0	(s)	2	(s)	3	(s)
China (Taiwan)	0	(s)	0	0	0	0	(s)	12	(s)	89	(s)	1	102	3
Colombia	0	(s)	0	0	0	0	(s)	1	16	(s)	0	2	19	1
Costa Rica	0	8	0	0	0	0	6	3	(s)	0	0	(s)	18	1
Denmark	0	(s)	0	0	0	0	0	(s)	(s)	0	0	(s)	1	(s)
Dominican Republic	0	35	0	0	0	0	0	(s)	(s)	0	0	1	36	1
Ecuador	0	94	0	0	0	0	(s)	(s)	(s)	0	(s)	1	96	3
Egypt	0	0	0	0	0	0	(s)	(s)	0	0	0	(s)	1	(s)
El Salvador	0	0	0	0	0	0	1	3	0	0	0	1	4	(s)
Finland	0	0	0	0	0	0	0	(s)	(s)	0	0	(s)	(s)	(s)
France	0	1	1	0	0	0	(s)	1	1	612	0	77	693	23
French Pacific Isl	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Ghana	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Greece	0	2	0	0	0	0	0	(s)	(s)	76	0	1	79	3
Guatemala	0	19	0	0	0	0	(s)	2	(s)	0	0	1	23	1
Honduras	0	1	0	0	(s)	0	2	(s)	(s)	(s)	0	(s)	3	(s)
Hong Kong	0	(s)	0	0	0	404	0	2	(s)	0	(s)	1	408	14
India	0	0	0	0	(s)	0	0	1	0	0	0	(s)	1	(s)
Indonesia	0	(s)	0	0	0	0	(s)	1	0	84	0	(s)	85	3
Iran	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Israel	0	0	0	0	0	0	0	(s)	(s)	(s)	0	(s)	1	(s)
Italy	0	0	0	0	0	345	3	1	(s)	653	0	102	1,104	37
Ivory Coast	0	0	0	0	0	0	0	13	0	0	(s)	0	13	(s)
Jamaica	0	49	0	0	0	0	0	(s)	0	0	0	(s)	50	2
Japan	0	(s)	(s)	0	388	1,000	12	15	2	1,287	(s)	75	2,780	93
Jordan	0	0	0	0	0	0	0	1	0	(s)	0	0	1	(s)
Korea, Republic of	0	1	0	0	215	548	(s)	1	(s)	1	0	2	768	26
Kuwait	0	1	0	0	0	0	0	2	0	0	0	(s)	4	(s)
Lebanon	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Liberia	0	0	0	0	0	0	0	(s)	0	0	(s)	0	(s)	(s)
Malaysia	0	(s)	0	0	(s)	0	(s)	1	0	0	0	(s)	2	(s)
Mexico	0	665	7	70	0	0	(s)	88	6	13	1	4	853	28
Netherlands	0	2	0	0	0	226	19	(s)	(s)	999	0	118	1,364	45
Netherlands Antilles	0	(s)	0	31	30	0	(s)	(s)	0	0	0	(s)	61	2
New Zealand	0	(s)	0	0	0	0	(s)	(s)	(s)	(s)	0	(s)	1	(s)
Nicaragua	0	0	0	0	0	0	0	4	0	0	0	(s)	5	(s)
Nigeria	0	0	0	0	0	0	0	41	0	0	(s)	0	41	1
Norway	0	(s)	0	0	0	0	0	(s)	0	28	0	(s)	28	1
Pacific Trust Terr.	0	(s)	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Panama	0	19	0	0	0	0	(s)	2	(s)	0	(s)	(s)	21	1
Peru	0	(s)	0	0	0	0	0	2	0	0	0	(s)	2	(s)
Philippines	0	0	0	0	0	0	(s)	(s)	0	0	0	51	52	2
Puerto Rico	465	11	0	0	0	0	1	18	1	0	0	41	537	18
Rep. of South Africa	0	(s)	0	0	0	0	(s)	1	5	0	(s)	(s)	7	(s)
Saudi Arabia	0	8	0	0	0	0	(s)	13	0	0	0	2	23	1

See footnotes at end of table.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, April 1984
(Thousand Barrels)
(continued)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Singapore	0	0	0	0	0	185	5	6	0	0	0	1	197	7
Spain	0	0	0	0	0	228	0	1	(s)	617	0	127	974	32
Surinam	0	0	0	0	0	0	0	1	0	10	0	(s)	11	(s)
Sweden	0	(s)	0	0	0	0	0	1	(s)	0	0	1	1	(s)
Switzerland	0	(s)	0	0	0	0	0	1	(s)	0	0	2	3	(s)
Thailand	0	0	0	0	0	0	0	2	0	0	0	58	61	2
Trinidad and Tobago	0	0	0	79	(s)	0	0	(s)	(s)	0	0	(s)	79	3
Turkey	0	(s)	0	0	0	0	0	(s)	0	22	0	42	64	2
United Arab Emirates	0	(s)	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
United Kingdom	0	1	0	0	(s)	0	(s)	1	(s)	2	(s)	2	5	(s)
U.S.S.R.	0	0	0	0	0	0	0	33	0	0	0	0	33	1
Uruguay	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Venezuela	0	176	0	0	0	0	1	1	(s)	86	0	2	266	9
Virgin Islands	3,481	(s)	0	0	0	353	0	(s)	0	0	0	(s)	3,834	128
West Germany	0	0	0	0	0	0	0	2	(s)	56	(s)	1	59	2
Yugoslavia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	951	28	(s)	0	125	44	(s)	6	0	(s)	(s)	31	1,185	40
Total	5,147	1,616	9	179	959	3,885	69	457	38	6,352	7	931	19,651	655

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

[2] Includes pentanes plus, kerosene, naphtha less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January - April 1984
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	(s)	0	0	0	0	(s)	52	1	(s)	0	(s)	54	(s)
Australia	0	1	0	0	1	800	18	17	1	580	1	38	1,455	12
Bahamas	0	33	4	(s)	535	656	0	5	(s)	0	0	1	1,235	10
Bahrain	0	0	0	0	(s)	0	(s)	1	0	178	0	(s)	179	1
Belgium & Luxembourg	0	2	(s)	0	0	0	(s)	42	(s)	2,650	(s)	3	2,698	22
Brazil	0	1	0	0	0	0	(s)	3	(s)	68	0	3	75	1
Cameroon	0	0	0	0	0	0	0	(s)	0	61	0	0	61	1
Canada	1,598	1,905	68	220	1,368	1,168	70	252	9	1,677	19	546	8,901	74
Chile	0	(s)	0	0	0	0	(s)	43	(s)	(s)	2	3	49	(s)
China (Taiwan)	0	1	0	0	0	1,008	(s)	39	(s)	91	(s)	3	1,143	9
Colombia	0	4	0	0	0	0	2	19	38	(s)	0	3	67	1
Costa Rica	0	49	0	0	0	0	8	17	(s)	0	10	4	88	1
Denmark	0	(s)	0	0	0	0	0	1	(s)	317	0	1	319	3
Dominican Republic	0	162	0	0	0	0	0	2	1	32	0	2	198	2
Ecuador	0	301	25	0	332	(s)	3	3	1	0	1	5	671	6
Egypt	0	1	0	0	(s)	0	(s)	4	(s)	0	0	1	6	(s)
El Salvador	0	0	0	0	0	0	1	18	(s)	0	0	1	19	(s)
Finland	0	0	0	0	0	0	0	3	(s)	0	0	1	5	(s)
France	0	38	1	0	1	405	(s)	3	5	1,443	0	473	2,369	20
French Pacific Isl	0	0	0	0	0	0	0	1	0	0	(s)	0	1	(s)
Ghana	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Greece	0	2	0	0	(s)	0	(s)	1	(s)	153	0	1	157	1
Guatemala	0	160	0	0	0	0	2	13	2	0	(s)	3	179	1
Guinea	0	(s)	0	0	0	120	(s)	3	0	0	0	(s)	123	1
Honduras	0	1	(s)	0	(s)	0	3	19	(s)	(s)	(s)	1	25	(s)
Hong Kong	0	(s)	0	0	0	404	2	5	1	0	1	3	417	3
India	0	0	0	0	(s)	0	0	14	(s)	38	(s)	19	72	1
Indonesia	0	1	0	0	(s)	0	(s)	9	(s)	84	(s)	1	96	1
Iran	0	0	0	0	0	0	1	1	0	0	0	0	1	(s)
Israel	0	1	0	0	0	0	2	(s)	(s)	(s)	0	3	6	(s)
Italy	0	156	0	0	(s)	2,948	3	3	2	3,189	(s)	388	6,690	55
Ivory Coast	0	0	0	0	124	156	0	13	0	0	(s)	(s)	293	2
Jamaica	0	92	25	0	0	0	(s)	41	(s)	0	0	4	163	1
Japan	0	6	(s)	0	755	2,895	32	115	9	4,299	(s)	192	8,304	69
Jordan	0	(s)	0	0	0	0	(s)	2	0	(s)	0	0	2	(s)
Korea, Republic of	0	2	0	0	468	885	(s)	10	1	288	0	154	1,808	15
Kuwait	0	3	0	0	0	0	(s)	6	0	0	0	(s)	9	(s)
Lebanon	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Liberia	0	(s)	0	0	0	251	0	1	0	0	(s)	(s)	253	2
Malaysia	0	(s)	0	0	(s)	0	(s)	2	(s)	0	0	(s)	3	(s)
Mexico	0	2,164	16	160	(s)	0	11	359	36	145	1	22	2,913	24
Netherlands	0	70	0	0	0	531	34	10	2	2,713	(s)	316	3,677	30
Netherlands Antilles	0	(s)	51	64	136	666	(s)	1	0	0	0	(s)	918	8
New Zealand	0	(s)	66	0	0	0	1	3	(s)	178	(s)	6	254	2
Nicaragua	0	(s)	0	0	0	0	0	23	0	0	0	1	24	(s)
Nigeria	0	(s)	0	0	0	0	(s)	43	0	0	(s)	(s)	43	(s)
Norway	0	(s)	0	0	0	0	0	1	0	435	0	1	437	4
Pacific Trust Terr.	0	(s)	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
Panama	0	34	113	0	645	516	3	24	(s)	(s)	(s)	1	1,336	11
Peru	0	(s)	0	0	576	0	(s)	61	(s)	0	0	1	638	5
Philippines	0	(s)	0	0	0	0	1	3	(s)	0	0	53	56	(s)
Puerto Rico	3,124	36	1	(s)	0	188	2	66	6	(s)	1	73	3,498	29
Rep. of South Africa	0	1	0	0	0	0	(s)	23	17	141	1	136	319	3

See footnotes at end of table.

Table 23. Year-tò-Date Exports of Crude Oil and Petroleum Products by Destination, January - April 1984 (Thousand Barrels)

(continued)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other2	Total	Total (Daily Average)
Saudi Arabia	0	33	0	0	(s)	0	(s)	91	0	0	0	13	137	1
Singapore	0	5	0	0	(s)	510	9	13	(s)	0	(s)	5	542	4
Spain	0	1	0	0	349	1,081	0	9	1	3,041	0	194	4,676	39
Surinam	0	0	0	0	0	0	0	3	0	25	0	1	29	(s)
Sweden	0	2	0	0	0	0	0	6	(s)	1	0	3	13	(s)
Switzerland	0	(s)	0	0	0	0	(s)	3	(s)	0	0	2	6	(s)
Thailand	0	(s)	0	0	0	0	1	30	(s)	(s)	0	61	92	1
Trinidad and Tobago	0	0	0	206	(s)	0	5	4	(s)	0	(s)	(s)	215	2
Turkey	0	(s)	0	0	0	0	(s)	1	(s)	22	0	144	167	1
United Arab Emirates	0	(s)	0	0	0	0	(s)	37	0	92	0	5	134	1
United Kingdom	0	40	(s)	0	5	0	1	9	2	61	(s)	11	130	1
U.S.S.R.	0	0	0	0	0	0	0	135	0	237	0	0	371	3
Uruguay	0	(s)	0	0	0	0	(s)	3	(s)	0	(s)	(s)	4	(s)
Venezuela	(s)	266	0	0	0	0	4	4	2	262	(s)	7	545	5
Virgin Islands	14,972	13	0	0	0	2,128	0	(s)	0	0	0	(s)	17,114	141
West Germany	0	(s)	0	0	0	0	(s)	34	11	281	(s)	14	341	3
Yugoslavia	0	0	0	0	0	0	0	(s)	(s)	168	0	0	169	1
Other	1,422	19	(s)	0	25	0	(s)	15	(s)	1	4	30	1,517	13
Total	22,545	5,652	370	650	5,446	17,436	223	1,815	151	23,034	43	3,035	80,400	664

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

[2] Includes pentanes plus, kerosene, naphtha less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, April 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil (incl. lease condensate)																	
Refinery	—	—	13,847	—	—	—	—	14,588	—	—	—	—	—	47,667	2,505	22,735	101,342
Tank Farms and Pipelines	—	—	1,650	—	—	—	—	61,229	—	—	—	—	—	96,510	10,236	28,992	198,617
Leases	—	—	59	—	—	—	—	1,644	—	—	—	—	—	16,935	1,377	1,785	21,800
Strategic Petroleum Reserve[1]	—	—	0	—	—	—	—	0	—	—	—	—	—	396,881	0	0	396,881
Alaskan In-Transit	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	25,857	25,857
Total	—	—	15,556	—	—	—	—	77,461	—	—	—	—	—	557,993	14,118	79,369	744,497
Total Stocks, All Oils (excl. Crude Oil)																	
Refinery	33,884	2,935	36,819	1,017	41,821	8,817	15,774	67,429	10,831	77,178	44,965	5,177	1,603	139,754	14,560	65,741	324,303
Bulk Terminal	—	—	96,555	—	—	—	—	79,300	—	—	—	—	—	77,951	3,283	22,347	279,436
Pipeline	—	—	25,409	—	—	—	—	35,289	—	—	—	—	—	39,223	2,902	4,907	107,730
Natural Gas Processing Plant	124	39	163	0	289	69	1,654	2,012	1,805	3,721	425	81	274	6,306	287	109	8,877
Total	—	—	158,946	—	—	—	—	184,030	—	—	—	—	—	263,234	21,032	93,104	720,346
Pentanes Plus																	
Refinery	16	0	16	0	29	48	243	320	70	260	109	24	11	474	19	14	843
Bulk Terminal	—	—	30	—	—	—	—	2,112	—	—	—	—	—	2,338	1	13	4,494
Pipeline	—	—	0	—	—	—	—	395	—	—	—	—	—	1,403	124	5	1,927
Natural Gas Processing Plant	3	10	13	0	59	22	287	368	467	467	139	32	33	1,138	88	17	1,624
Total	—	—	59	—	—	—	—	3,195	—	—	—	—	—	5,353	232	49	8,888
Liquefied Petroleum Gases																	
Refinery	481	19	500	136	1,485	124	532	2,277	191	698	1,364	21	31	2,305	348	688	6,118
Bulk Terminal	—	—	1,018	—	—	—	—	16,551	—	—	—	—	—	47,970	61	543	66,143
Pipeline	—	—	1,100	—	—	—	—	7,072	—	—	—	—	—	5,791	427	0	14,390
Natural Gas Processing Plant	95	29	124	0	228	47	1,367	1,642	1,166	3,251	286	48	241	4,992	180	92	7,030
Total	—	—	2,742	—	—	—	—	27,542	—	—	—	—	—	61,058	1,016	1,323	93,681
Ethane																	
Refinery	8	0	8	0	6	11	0	17	0	7	0	0	0	7	0	0	32
Bulk Terminal	—	—	0	—	—	—	—	2,225	—	—	—	—	—	13,532	0	1	15,758
Pipeline	—	—	0	—	—	—	—	1,619	—	—	—	—	—	1,934	131	0	3,684
Natural Gas Processing Plant	0	0	0	0	24	0	364	388	153	1,234	0	0	16	1,403	2	0	1,793
Total	—	—	8	—	—	—	—	4,249	—	—	—	—	—	16,876	133	1	21,267

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, April 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Propane for Petrochemical Feedstock Use																	
Refinery	30	0	30	0	149	0	0	149	2	6	38	0	0	46	0	0	225
Total	—	—	30	—	—	—	—	149	—	—	—	—	—	46	0	0	225
Propane For Other Uses																	
Refinery	372	4	376	1	803	35	174	1,013	80	53	1,022	5	3	1,163	130	271	2,953
Bulk Terminal	—	—	895	—	—	—	—	11,294	—	—	—	—	—	19,441	61	104	31,795
Pipeline	—	—	999	—	—	—	—	3,812	—	—	—	—	—	2,515	175	0	7,501
Natural Gas Processing Plant	76	29	105	0	124	28	665	817	606	1,003	158	27	157	1,951	121	77	3,071
Total	—	—	2,375	—	—	—	—	16,936	—	—	—	—	—	25,070	487	452	45,320
Normal Butane For Petro. Feed Use																	
Refinery	0	0	0	0	0	6	0	6	0	7	0	2	0	9	5	2	22
Total	—	—	0	—	—	—	—	6	—	—	—	—	—	9	5	2	22
Normal Butane For Other Uses																	
Refinery	38	15	53	79	348	47	206	680	77	510	171	4	21	783	171	390	2,077
Bulk Terminal	—	—	104	—	—	—	—	1,694	—	—	—	—	—	9,699	0	341	11,838
Pipeline	—	—	99	—	—	—	—	1,092	—	—	—	—	—	992	79	0	2,262
Natural Gas Processing Plant	19	0	19	0	57	15	264	336	326	629	82	16	55	1,108	50	9	1,522
Total	—	—	275	—	—	—	—	3,802	—	—	—	—	—	12,582	300	740	17,699
Isobutane																	
Refinery	33	0	33	56	179	25	152	412	32	115	133	10	7	297	42	25	809
Bulk Terminal	—	—	19	—	—	—	—	1,338	—	—	—	—	—	5,298	0	97	6,752
Pipeline	—	—	2	—	—	—	—	549	—	—	—	—	—	350	42	0	943
Natural Gas Processing Plant	0	0	0	0	23	4	74	101	81	385	46	5	13	530	7	6	644
Total	—	—	54	—	—	—	—	2,400	—	—	—	—	—	6,475	91	128	9,148
Other Hydrocarbons and Alcohol																	
Refinery	27	0	27	0	110	0	0	110	1	88	7	0	0	96	0	5	238
Total	—	—	27	—	—	—	—	110	—	—	—	—	—	96	0	5	238
Unfinished Oils																	
Refinery																	
Naphthas and Lighter	3,737	224	3,961	43	3,541	173	1,463	5,220	553	9,320	4,895	169	79	15,016	662	4,743	29,602
Kerosene and Lighter Gas Oils	1,633	29	1,662	0	2,877	4	416	3,297	873	8,701	3,057	57	4	12,692	435	4,062	22,148
Heavy Gas Oils	4,996	315	5,311	99	4,657	346	2,234	7,336	1,163	11,348	7,095	136	217	19,959	1,017	12,129	45,752
Residuum	2,251	245	2,496	2	2,699	14	1,062	3,777	445	4,928	4,363	6	85	9,827	722	5,935	22,757
Total	12,617	813	13,430	144	13,774	537	5,175	19,630	3,034	34,297	19,410	368	385	57,494	2,836	26,869	120,259

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, April 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Motor Gasoline Blending Components																	
Refinery	4,530	137	4,667	35	4,885	1,021	1,791	7,732	1,595	9,015	6,078	128	191	17,007	2,554	7,524	39,484
Bulk Terminal	—	—	131	—	—	—	—	125	—	—	—	—	—	819	1	42	1,118
Pipeline	—	—	0	—	—	—	—	2	—	—	—	—	—	21	0	0	23
Total	—	—	4,798	—	—	—	—	7,859	—	—	—	—	—	17,847	2,555	7,566	40,625
Aviation Gasoline Blending Components																	
Refinery	0	0	0	0	185	0	37	222	0	15	99	0	0	114	0	47	383
Total	—	—	0	—	—	—	—	222	—	—	—	—	—	114	0	47	383
Total Finished Motor Gasoline																	
Refinery	4,654	331	4,985	93	7,143	1,873	3,093	12,202	2,270	10,044	5,316	1,586	179	19,395	2,782	8,036	47,400
Bulk Terminal	—	—	41,922	—	—	—	—	33,575	—	—	—	—	—	15,951	1,980	10,551	103,979
Pipeline	—	—	15,146	—	—	—	—	17,766	—	—	—	—	—	19,338	1,428	2,301	55,979
Natural Gas Processing Plant	26	0	26	0	0	0	0	0	0	0	0	0	0	0	17	0	43
Total	—	—	62,079	—	—	—	—	63,543	—	—	—	—	—	54,684	6,207	20,888	207,401
Finished Leaded Motor Gasoline																	
Refinery	1,729	211	1,940	56	3,209	1,110	1,660	6,035	1,157	4,379	2,337	515	107	8,495	1,780	3,675	21,925
Bulk Terminal	—	—	20,649	—	—	—	—	17,032	—	—	—	—	—	9,166	1,275	5,121	53,243
Pipeline	—	—	6,142	—	—	—	—	9,074	—	—	—	—	—	8,540	880	1,211	25,847
Natural Gas Processing Plant	14	0	14	0	0	0	0	0	0	0	0	0	0	0	11	0	25
Total	—	—	28,745	—	—	—	—	32,141	—	—	—	—	—	26,201	3,946	10,007	101,040
Finished Unleaded Motor Gasoline																	
Refinery	2,925	120	3,045	37	3,934	763	1,433	6,167	1,113	5,665	2,979	1,071	72	10,900	1,002	4,361	25,475
Bulk Terminal	—	—	21,273	—	—	—	—	16,543	—	—	—	—	—	6,785	705	5,430	50,736
Pipeline	—	—	9,004	—	—	—	—	8,692	—	—	—	—	—	10,798	548	1,090	30,132
Natural Gas Processing Plant	12	0	12	0	0	0	0	0	0	0	0	0	0	0	6	0	18
Total	—	—	33,334	—	—	—	—	31,402	—	—	—	—	—	28,483	2,261	10,881	106,361
Finished Aviation Gasoline																	
Refinery	42	0	42	0	128	0	9	137	126	372	179	0	0	677	40	196	1,092
Bulk Terminal	—	—	359	—	—	—	—	414	—	—	—	—	—	102	20	239	1,134
Pipeline	—	—	0	—	—	—	—	101	—	—	—	—	—	25	0	135	261
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	83	0	0	0	0	83	0	0	83
Total	—	—	401	—	—	—	—	652	—	—	—	—	—	887	60	570	2,570

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, April 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachian #1	Total	Appa-lachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Naphtha-Type Jet Fuel																	
Refinery	100	37	137	0	542	89	169	800	287	769	251	194	169	1,670	217	1,026	3,850
Bulk Terminal	—	—	432	—	—	—	—	645	—	—	—	—	—	105	16	506	1,704
Pipeline	—	—	149	—	—	—	—	109	—	—	—	—	—	421	134	352	1,165
Total	—	—	718	—	—	—	—	1,554	—	—	—	—	—	2,196	367	1,884	6,719
Kerosene-Type Jet Fuel																	
Refinery	862	0	862	44	1,365	249	108	1,766	307	3,015	2,510	3	40	5,875	413	3,625	12,541
Bulk Terminal	—	—	3,510	—	—	—	—	3,938	—	—	—	—	—	1,343	241	1,654	10,686
Pipeline	—	—	3,346	—	—	—	—	2,236	—	—	—	—	—	4,409	208	555	10,754
Total	—	—	7,718	—	—	—	—	7,940	—	—	—	—	—	11,627	862	5,834	33,981
Kerosene																	
Refinery	209	109	318	0	334	53	205	592	73	506	500	19	30	1,128	0	255	2,293
Bulk Terminal	—	—	2,572	—	—	—	—	760	—	—	—	—	—	319	25	41	3,717
Pipeline	—	—	113	—	—	—	—	133	—	—	—	—	—	425	0	0	671
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2
Total	—	—	3,003	—	—	—	—	1,485	—	—	—	—	—	1,874	25	296	6,683
Distillate Fuel Oils																	
Refinery	3,310	265	3,575	40	4,267	1,647	2,304	8,258	944	6,445	3,057	632	266	11,344	2,026	4,796	29,999
Bulk Terminal	—	—	20,710	—	—	—	—	14,545	—	—	—	—	—	4,598	695	5,377	45,925
Pipeline	—	—	5,550	—	—	—	—	7,377	—	—	—	—	—	7,071	581	1,335	21,914
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	2
Total	—	—	29,835	—	—	—	—	30,180	—	—	—	—	—	23,015	3,302	11,508	97,840
Residual Fuel Oils																	
Refinery	2,259	109	2,368	52	1,625	317	202	2,196	483	4,102	2,619	168	14	7,386	516	7,386	19,852
Bulk Terminal	—	—	20,336	—	—	—	—	1,353	—	—	—	—	—	3,532	0	2,194	27,415
Pipeline	—	—	5	—	—	—	—	0	—	—	—	—	—	1	0	97	103
Total	—	—	22,709	—	—	—	—	3,549	—	—	—	—	—	10,919	516	9,677	47,370
Naphtha < 400 Deg. Petro. Feedstock																	
Refinery	331	0	331	0	113	0	28	141	105	837	382	35	0	1,359	0	213	2,044
Total	331	0	331	0	113	0	28	141	105	837	382	35	0	1,359	0	213	2,044
Other Oils > 400 Deg. Petro. Feedstock																	
Refinery	5	0	5	0	27	0	0	27	306	1,211	214	0	0	1,731	3	400	2,166
Total	5	0	5	0	27	0	0	27	306	1,211	214	0	0	1,731	3	400	2,166

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, April 1984
(Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Special Naphthas																	
Refinery	92	40	132	0	230	0	172	402	17	1,254	68	139	0	1,478	9	258	2,279
Bulk Terminal	—	—	573	—	—	—	—	144	—	—	—	—	—	117	0	42	876
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	80	0	0	0	0	80	0	0	80
Total	—	—	705	—	—	—	—	546	—	—	—	—	—	1,675	9	300	3,235
Lubricants																	
Refinery	969	832	1,801	0	764	0	572	1,336	34	2,736	1,013	596	0	4,379	60	521	8,097
Bulk Terminal	—	—	1,227	—	—	—	—	681	—	—	—	—	—	254	2	758	2,922
Total	—	—	3,028	—	—	—	—	2,017	—	—	—	—	—	4,633	62	1,279	11,019
Waxes																	
Refinery	9	106	115	0	34	0	36	70	14	245	90	61	0	410	0	55	650
Total	—	—	115	—	—	—	—	70	—	—	—	—	—	410	0	55	650
Petroleum Coke																	
Refinery	789	0	789	0	333	831	151	1,315	0	292	1,235	199	0	1,726	166	1,697	5,693
Total	789	0	789	0	333	831	151	1,315	0	292	1,235	199	0	1,726	166	1,697	5,693
Asphalt and Road Oil																	
Refinery	2,342	116	2,458	473	4,327	2,023	932	7,755	936	408	386	926	287	2,943	2,562	1,996	17,714
Bulk Terminal	—	—	3,486	—	—	—	—	4,435	—	—	—	—	—	450	238	298	8,907
Total	—	—	5,944	—	—	—	—	12,190	—	—	—	—	—	3,393	2,800	2,294	26,621
Miscellaneous Products																	
Refinery	240	21	261	0	121	5	15	141	38	569	78	78	0	763	9	134	1,308
Bulk Terminal	—	—	249	—	—	—	—	22	—	—	—	—	—	53	3	89	416
Pipeline	—	—	0	—	—	—	—	98	—	—	—	—	—	318	0	127	543
Natural Gas Processing Plant	0	0	0	0	2	0	0	2	7	1	0	1	0	9	2	0	13
Total	—	—	510	—	—	—	—	263	—	—	—	—	—	1,143	14	350	2,280
Total Stocks, All Oils	—	—	174,502	—	—	—	—	261,491	—	—	—	—	—	821,227	35,150	172,473	1,464,843

[1] Includes 33,879 thousand barrels of domestic crude oil.
Source: See Explanatory Notes on Data Collection and Estimation.
— Not Applicable.

Table 25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, April 1984 (Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I Total	22,589	24,318	2,890	24,285	22,704
Connecticut	678	672	87	990	355
Delaware, D.C., Maryland	1,144	1,349	157	1,435	1,568
Florida	2,755	3,530	245	1,418	1,048
Georgia	1,456	1,620	76	946	364
Maine	517	535	77	587	443
Massachusetts	934	1,097	40	1,304	1,122
New Hampshire, Vermont	89	50	w	302	169
New Jersey	3,648	3,743	353	5,938	9,262
New York	4,253	2,916	288	3,277	3,432
North Carolina	1,656	1,571	533	1,294	665
Pennsylvania	2,461	3,621	515	3,392	2,397
Rhode Island	324	646	w	544	68
South Carolina	783	855	197	703	665
Virginia	1,662	1,918	285	1,912	1,062
West Virginia	229	195	16	243	84
PAD District II Total	23,067	22,710	1,352	22,803	3,549
Illinois	4,152	5,051	230	4,213	753
Indiana	2,839	2,980	119	3,003	595
Iowa	887	811	w	1,094	w
Kansas	1,330	1,236	29	1,677	69
Kentucky	1,015	1,170	127	1,065	164
Michigan	2,606	2,418	150	2,007	485
Minnesota	1,787	1,216	w	1,987	269
Missouri	914	706	w	750	w
Nebraska	436	182	0	333	0
North & South Dakota	426	345	0	913	w
Ohio	2,687	2,995	321	2,221	411
Oklahoma	1,401	1,187	181	1,263	238
Tennessee	1,102	1,188	97	731	127
Wisconsin	1,485	1,225	w	1,546	115
PAD District III Total	17,661	17,685	1,447	15,942	10,918
Alabama	977	1,074	50	742	441
Arkansas	203	286	w	220	37
Louisiana	2,597	3,151	508	3,242	3,823
Mississippi	1,268	1,843	13	958	542
New Mexico	290	218	w	386	14
Texas	12,326	11,113	842	10,394	6,061
PAD District IV Total	3,055	1,707	25	2,721	516
Colorado	890	495	0	371	121
Idaho	253	145	0	182	0
Montana	691	394	w	743	122
Utah	302	210	0	699	181
Wyoming	919	463	w	726	92
PAD District V Total	8,796	9,791	296	10,173	9,580
Alaska	496	317	w	1,103	w
Arizona	341	374	w	256	0
California	4,952	6,424	176	5,127	7,173
Hawaii	282	208	0	241	w
Nevada	144	200	w	140	w
Oregon	674	612	w	1,204	190
Washington	1,907	1,656	w	2,102	1,279
United States Total	75,168	76,211	6,010	75,924	47,267

Commodity	From I to			From II to				From III to				From IV to			From V to			
	II	III	V	I	III	IV	V	I	II	IV	V	II	III	V	I	II	III	IV
Crude Oil (Tanker and Barge only)	0	0	0	0	0	0	0	372	1,657	0	0	0	0	0	3,053	1,150	12,622	0
Petroleum Products	8,839	251	0	2,817	10,144	2,146	0	76,378	25,743	0	2,425	1,567	851	1,292	0	0	257	0
Pentanes Plus	0	0	0	0	805	0	0	0	595	0	0	66	138	0	0	0	0	0
Liquefied Petroleum Gases	0	0	0	635	6,290	94	0	1,172	7,164	0	0	581	713	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	0	1,505	179	0	0	0	0	0	0	0	232	0
Motor Gasoline Blending Components	14	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	6,294	0	0	1,613	1,994	1,304	0	46,607	11,926	0	1,481	559	0	928	0	0	0	0
Finished Leaded Motor Gasoline	3,181	0	0	484	1,068	679	0	17,766	6,189	0	610	350	0	603	0	0	0	0
Finished Unleaded Motor Gasoline	3,113	0	0	1,129	926	625	0	28,841	5,737	0	871	209	0	325	0	0	0	0
Finished Aviation Gasoline	15	0	0	0	22	14	0	207	138	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	127	40	0	0	202	0	0	602	50	0	228	60	0	94	0	0	0	0
Kerosene-Type Jet Fuel	231	0	0	80	71	511	0	9,018	1,750	0	186	2	0	106	0	0	0	0
Kerosene	8	0	0	0	0	0	0	204	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	2,055	0	0	233	514	223	0	15,043	3,151	0	416	299	0	164	0	0	0	0
Residual Fuel Oil	8	0	0	158	209	0	0	460	8	0	0	0	0	0	0	0	0	0
Naphtha and Other Oils for Petro. Feedstock	27	0	0	18	0	0	0	23	24	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	378	119	0	0	0	0	0	0	0	0	0
Lubricants	0	48	0	54	19	0	0	866	460	0	114	0	0	0	0	0	0	0
Waxes	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	75	0	7	0	0	0	198	178	0	0	0	0	0	0	0	0	0
Miscellaneous Products	60	88	0	19	18	0	0	92	0	0	0	0	0	0	0	0	25	0
Total All Products	8,839	251	0	2,817	10,144	2,146	0	76,750	27,400	0	2,425	1,567	851	1,292	3,053	1,150	12,879	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 27. Movements of Petroleum Products by Pipeline between PAD Districts, April 1984
(Thousand Barrels)

Commodity	From I to		From II to			From III to				From IV to			From V to	
	II	III	I	III	IV	I	II	IV	V	II	III	V	III	IV
Pentanes Plus	0	0	0	805	0	0	595	0	0	66	138	0	0	0
Liquefied Petroleum Gases	0	0	635	6,290	94	966	7,164	0	0	581	713	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	4,314	0	1,400	1,930	1,304	35,383	11,391	0	985	559	0	928	0	0
Finished Leaded Motor Gasoline	2,173	0	379	1,033	679	13,740	5,939	0	546	350	0	603	0	0
Finished Unleaded Motor Gasoline	2,141	0	1,021	897	625	21,643	5,452	0	439	209	0	325	0	0
Finished Aviation Gasoline	15	0	0	0	14	61	132	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	202	0	423	50	0	228	60	0	94	0	0
Kerosene-Type Jet Fuel	110	0	72	71	511	5,527	1,587	0	186	2	0	106	0	0
Kerosene	5	0	0	0	0	204	0	0	0	0	0	0	0	0
Distillate Fuel Oil	1,389	0	171	514	223	11,407	2,695	0	416	299	0	164	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5,833	0	2,278	9,812	2,146	53,971	23,615	0	1,815	1,567	851	1,292	0	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 28. Movements of Crude Oil and Petroleum Products by Tanker and Barge between PAD Districts, April 1984 (Thousand Barrels)

Commodity	From I to			From II to			From III to						From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Crude Oil	0	0	0	0	0	0	372	0	372	0	1,657	0	3,053	1,150	12,622
Petroleum Products	3,006	251	0	539	332	0	22,407	810	4,702	16,895	2,128	610	0	0	257
Liquefied Petroleum Gases	0	0	0	0	0	0	206	0	0	206	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	1,505	0	1,408	97	179	0	0	0	232
Motor Gasoline Blending Components	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	1,980	0	0	213	64	0	11,224	101	618	10,505	535	496	0	0	0
Finished Leaded Motor Gasoline	1,008	0	0	105	35	0	4,026	46	59	3,921	250	64	0	0	0
Finished Unleaded Motor Gasoline	972	0	0	108	29	0	7,198	55	559	6,584	285	432	0	0	0
Finished Aviation Gasoline	0	0	0	0	22	0	146	10	25	111	6	0	0	0	0
Naphtha-Type Jet Fuel	127	40	0	0	0	0	179	14	0	165	0	0	0	0	0
Kerosene-Type Jet Fuel	121	0	0	8	0	0	3,491	130	802	2,559	163	0	0	0	0
Kerosene	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	666	0	0	62	0	0	3,636	524	925	2,187	456	0	0	0	0
Residual Fuel Oil	8	0	0	158	209	0	460	0	0	460	8	0	0	0	0
Naphtha and Other Oils for Petro. Feed. Use	27	0	0	18	0	0	23	0	0	23	24	0	0	0	0
Special Naphthas	0	0	0	0	0	0	378	31	248	99	119	0	0	0	0
Lubricants	0	48	0	54	19	0	866	0	596	270	460	114	0	0	0
Waxes	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0
Asphalt and Road Oil	0	75	0	7	0	0	198	0	1	197	178	0	0	0	0
Miscellaneous Products	60	88	0	19	18	0	92	0	76	16	0	0	0	0	25
Total	3,006	251	0	539	332	0	22,779	810	5,074	16,895	3,785	610	3,053	1,150	12,879

Source: See Explanatory Notes on Data Collection and Estimation.

Table 29. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker and Barge Between PAD Districts,
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			PAD District V		
	Receipts into PADD I	Ship-ments from PADD I	Net Receipts PADD I	Receipts into PADD II	Ship-ments from PADD II	Net Receipts PADD II	Receipts into PADD III	Ship-ments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Ship-ments from PADD VI	Net Receipts PADD IV	Receipts into PADD V	Ship-ments from PADD V	Net Receipts PADD V
Crude Oil (Tanker and Barge only)	3,425	0	3,425	2,807	0	2,807	12,622	2,029	10,593	0	0	0	0	16,825	-16,825
Petroleum Products	79,195	9,090	70,105	36,149	15,107	21,042	11,503	104,546	-93,043	2,146	3,710	-1,564	3,717	257	3,460
Pentanes Plus	0	0	0	661	805	-144	943	595	348	0	204	-204	0	0	0
Liquefied Petroleum Gases	1,807	0	1,807	7,745	7,019	726	7,003	8,336	-1,333	94	1,294	-1,200	0	0	0
Unfinished Oils	1,505	0	1,505	179	0	179	232	1,684	-1,452	0	0	0	0	232	-232
Motor Gasoline Blending Components	0	14	-14	15	0	15	0	1	-1	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	48,220	6,294	41,926	18,779	4,911	13,868	1,994	60,014	-58,020	1,304	1,487	-183	2,409	0	2,409
Finished Leaded Motor Gasoline	18,250	3,181	15,069	9,720	2,231	7,489	1,068	24,565	-23,497	679	953	-274	1,213	0	1,213
Finished Unleaded Motor Gasoline	29,970	3,113	26,857	9,059	2,680	6,379	926	35,449	-34,523	625	534	91	1,196	0	1,196
Finished Aviation Gasoline	207	15	192	153	36	117	22	345	-323	14	0	14	0	0	0
Naphtha-Type Jet Fuel	602	167	435	237	202	35	242	880	-638	0	154	-154	322	0	322
Kerosene-Type Jet Fuel	9,098	231	8,867	1,983	662	1,321	71	10,954	-10,883	511	108	403	292	0	292
Kerosene	204	8	196	8	0	8	0	204	-204	0	0	0	0	0	0
Distillate Fuel Oil	15,276	2,055	13,221	5,505	970	4,535	514	18,610	-18,096	223	463	-240	580	0	580
Residual Fuel Oil	618	8	610	16	367	-351	209	468	-259	0	0	0	0	0	0
Naphtha and Other Oils for Petro. Feedstock Use	41	27	14	51	18	33	0	47	-47	0	0	0	0	0	0
Special Naphthas	378	0	378	119	0	119	0	497	-497	0	0	0	0	0	0
Lubricants	920	48	872	460	73	387	67	1,440	-1,373	0	0	0	114	0	114
Waxes	3	0	3	0	0	0	0	3	-3	0	0	0	0	0	0
Asphalt and Road Oil	205	75	130	178	7	171	75	376	-301	0	0	0	0	0	0
Miscellaneous Products	111	148	-37	60	37	23	131	92	39	0	0	0	0	25	-25
Total All Products	82,620	9,090	73,530	38,956	15,107	23,849	24,125	106,575	-82,450	2,146	3,710	-1,564	3,717	17,082	-13,365

Source: See Explanatory Notes on Data Collection and Estimation.

Table 30. Production of Residual Fuel Oil by Sulfur Content, April 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Residual Fuel Oil	2,254	100	2,354	70	1,178	221	311	1,780	817	6,409	2,854	198	14	10,292	320	10,449	25,195
0.00 to 0.30% Sulfur	284	10	294	0	72	8	0	80	51	694	252	68	8	1,073	114	466	2,027
0.31 to 1.00% Sulfur	1,170	1	1,171	47	294	0	149	490	675	939	920	72	0	2,606	51	2,379	6,697
Greater Than 1.00% Sulfur	800	89	889	23	812	213	162	1,210	91	4,776	1,682	58	6	6,613	155	7,604	16,471

Source: See Explanatory Notes on Data Collection and Estimation.

Table 31. Stocks of Residual Fuel Oil by Sulfur Content, April 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Residual Fuel Oil -- 0.00 to 0.30% Sulfur																	
Refinery	143	22	165	0	97	6	38	141	62	335	130	15	5	547	109	328	1,290
Bulk Terminal	—	—	5,078	—	—	—	—	8	—	—	—	—	—	0	0	23	5,109
Total	—	—	5,243	—	—	—	—	149	—	—	—	—	—	547	109	351	6,399
Residual Fuel Oil -- 0.31 to 1.00% Sulfur																	
Refinery	1,060	3	1,063	49	734	0	96	879	295	785	1,101	84	0	2,265	102	1,714	6,023
Bulk Terminal	—	—	7,403	—	—	—	—	310	—	—	—	—	—	1,369	0	670	9,752
Total	—	—	8,466	—	—	—	—	1,189	—	—	—	—	—	3,634	102	2,384	15,775
Residual Fuel Oil -- Greater than 1.00% Sulfur																	
Refinery	1,056	84	1,140	3	794	311	68	1,176	126	2,982	1,388	69	9	4,574	305	5,344	12,539
Bulk Terminal	—	—	7,855	—	—	—	—	1,035	—	—	—	—	—	2,163	0	1,501	12,554
Total	—	—	8,995	—	—	—	—	2,211	—	—	—	—	—	6,737	305	6,845	25,093

Source: See Explanatory Notes on Data Collection and Estimation.
— Not Applicable

Table 32. Movements of Residual Fuel Oil by Tanker and Barge between PAD Districts, by Sulfur Content, April 1984
(Thousand Barrels)

Commodity	From I to			From II to			From III to						From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Residual Fuel Oil	8	0	0	158	209	0	460	0	0	460	8	0	0	0	0
0.00 to 0.30% Sulfur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.31 to 1.00% Sulfur	0	0	0	0	0	0	353	0	0	353	8	0	0	0	0
Greater Than 1.00% Sulfur	8	0	0	158	209	0	107	0	0	107	0	0	0	0	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, April 1984
(Thousand Barrels)

Country	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
Arab OPEC				
Algeria	1,497	0	0	1,497
Iraq	0	0	0	0
Kuwait	0	0	890	890
Libya	0	0	0	0
Qatar	0	0	0	0
Saudi Arabia	0	0	0	0
United Arab Emirates	0	0	434	434
Subtotal Arab OPEC	1,497	0	1,324	2,821
Other OPEC				
Ecuador	0	0	149	149
Gabon	0	0	0	0
Indonesia	406	406	71	883
Iran	0	0	0	0
Nigeria	0	0	0	0
Venezuela	1,104	0	3,476	4,580
Subtotal Other OPEC	1,510	406	3,697	5,613
Other				
Angola	0	0	0	0
Australia	0	0	0	0
Bahamas	688	70	224	982
Bolivia	0	0	0	0
Brazil	928	337	0	1,265
Brunei	0	0	0	0
Canada	62	205	305	573
Congo	175	0	0	175
Egypt	0	0	0	0
France	0	0	0	0
Ghana	0	0	0	0
Liberia	0	0	0	0
Malaysia	0	16	(s)	17
Mexico	28	0	1	29
Netherlands	0	0	239	239
Netherlands Antilles	60	366	2,468	2,894
Norway	0	0	0	0
Oman	0	0	0	0
People's Republic of China	0	0	0	0
Peru	42	0	246	288
Puerto Rico	0	0	0	0
Romania	0	0	0	0
Spain	0	0	2	2
Syria	0	0	0	0
Trinidad	0	0	0	0
Tunisia	0	0	0	0
United Kingdom	0	0	0	0
Virgin Islands	0	1,837	645	2,482
Yugoslavia	0	0	0	0
Zaire	0	0	0	0

See footnotes at end of table.

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, April 1984 (Thousand Barrels) (continued)

Country	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
Other				
Other Western Hemisphere	182	123	192	497
Other Eastern Hemisphere	984	186	74	1,245
Subtotal Other	3,149	3,141	4,396	10,686
Total Imports	6,157	3,547	9,416	19,120

(s) = Less than 500 barrels.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 34. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, April 1984 (Thousand Barrels)

State	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
PAD District I	**5,027**	**2,780**	**7,872**	**15,679**
Delaware	0	0	100	100
Florida	28	493	776	1,297
Georgia	0	0	179	179
Maine	0	123	412	535
Maryland	252	0	225	478
Massachusetts	464	0	1,611	2,075
New Hampshire	0	0	149	149
New Jersey	662	946	903	2,511
New York	3,052	877	2,362	6,291
North Carolina	0	0	247	247
Pennsylvania	556	242	199	997
Rhode Island	0	99	0	99
South Carolina	0	0	129	129
Vermont	13	0	(s)	13
Virginia	0	0	579	579
PAD District II	**30**	**159**	**62**	**251**
Illinois	0	52	0	52
Michigan	30	107	15	152
North Dakota	0	0	3	3
Ohio	0	0	43	43
PAD District III	**1,098**	**0**	**1,324**	**2,422**
Texas	1,098	0	1,324	2,422
PAD District IV	**1**	**0**	**13**	**14**
Montana	1	0	13	14
PAD District V	**0**	**608**	**146**	**755**
California	0	0	1	1
Hawaii	0	608	145	754
All PAD Districts	**6,157**	**3,547**	**9,416**	**19,120**

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I Total	**19,484**	**23,225**	**2,702**	**35,498**	**20,970**
Connecticut	729	775	82	1,658	281
Delaware, D.C., Maryland	1,021	1,201	124	2,006	1,512
Florida	2,192	3,014	178	1,404	922
Georgia	1,299	1,374	84	1,016	154
Maine	431	545	71	1,252	429
Massachusetts	811	1,028	34	3,208	1,054
New Hampshire, Vermont	100	85	w	480	172
New Jersey	2,667	3,801	311	8,254	8,463
New York	2,613	2,936	407	6,155	3,742
North Carolina	1,451	1,244	418	868	382
Pennsylvania	2,914	3,737	494	4,559	2,118
Rhode Island	382	613	w	1,557	188
South Carolina	848	976	187	854	287
Virginia	1,828	1,712	193	1,930	1,189
West Virginia	198	184	17	297	77
PAD District II Total	**21,236**	**19,082**	**1,319**	**27,973**	**3,624**
Illinois	3,405	3,960	183	5,156	1,005
Indiana	2,632	2,584	136	4,805	565
Iowa	995	558	w	1,501	w
Kansas	1,529	1,001	29	1,699	50
Kentucky	1,416	1,153	162	1,151	169
Michigan	2,225	2,052	135	2,437	530
Minnesota	1,308	923	w	1,709	195
Missouri	711	500	w	678	w
Nebraska	363	229	0	446	0
North & South Dakota	400	247	0	895	w
Ohio	2,748	2,895	305	2,879	335
Oklahoma	1,127	675	228	1,686	191
Tennessee	1,100	1,219	77	854	104
Wisconsin	1,277	1,086	w	2,077	141
PAD District III Total	**13,320**	**13,905**	**1,753**	**17,271**	**11,759**
Alabama	865	904	38	716	453
Arkansas	208	234	w	309	58
Louisiana	2,238	2,769	584	3,409	4,436
Mississippi	1,190	878	15	967	301
New Mexico	336	227	w	327	46
Texas	8,483	8,893	1,058	11,543	6,465
PAD District IV Total	**2,934**	**1,672**	**41**	**2,961**	**412**
Colorado	722	457	0	498	82
Idaho	262	142	0	239	0
Montana	708	399	w	659	70
Utah	363	242	0	554	182
Wyoming	879	432	w	1,011	78
PAD District V Total	**8,663**	**10,433**	**251**	**9,758**	**8,526**
Alaska	421	289	w	1,166	w
Arizona	415	380	w	235	0
California	4,609	6,637	101	5,058	5,782
Hawaii	293	295	0	266	w
Nevada	184	243	w	128	w
Oregon	714	703	w	900	187
Washington	2,027	1,886	w	2,005	1,621
United States Total	**65,637**	**68,317**	**6,066**	**93,461**	**45,291**

Note: w = withheld to avoid disclosure of individual company data.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 36. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, February 1984 (Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I Total	**21,233**	**25,085**	**4,101**	**47,155**	**30,766**
Connecticut	725	752	105	2,074	693
Delaware, D.C., Maryland	1,382	1,286	277	3,831	2,287
Florida	2,211	2,818	230	2,207	1,270
Georgia	1,414	1,514	100	1,029	404
Maine	469	563	119	1,326	953
Massachusetts	990	1,209	79	3,139	2,064
New Hampshire, Vermont	81	69	w	725	251
New Jersey	3,689	5,083	693	13,429	12,685
New York	3,118	3,349	475	6,932	4,359
North Carolina	1,302	1,404	628	1,496	700
Pennsylvania	2,926	3,750	670	5,887	3,113
Rhode Island	417	570	w	1,326	11
South Carolina	768	896	246	806	580
Virginia	1,552	1,628	394	2,707	1,342
West Virginia	189	194	25	241	54
PAD District II Total	**21,962**	**21,129**	**1,733**	**28,241**	**4,180**
Illinois	3,635	4,502	230	5,195	973
Indiana	2,117	2,273	162	4,465	747
Iowa	954	816	w	1,558	w
Kansas	1,238	837	18	1,862	49
Kentucky	1,236	1,408	162	1,166	151
Michigan	2,451	2,346	186	2,622	578
Minnesota	1,758	1,178	w	2,026	262
Missouri	860	527	w	840	w
Nebraska	522	286	0	405	0
North & South Dakota	450	356	0	881	w
Ohio	2,992	3,284	492	3,025	446
Oklahoma	1,174	1,056	258	1,332	263
Tennessee	1,211	1,156	113	944	218
Wisconsin	1,364	1,104	w	1,920	123
PAD District III Total	**14,313**	**16,125**	**1,975**	**19,506**	**12,860**
Alabama	1,022	940	52	657	713
Arkansas	281	241	w	242	47
Louisiana	2,387	3,202	670	4,021	4,711
Mississippi	1,022	1,196	16	1,320	406
New Mexico	343	233	w	297	6
Texas	9,258	10,313	1,148	12,969	6,977
PAD District IV Total	**2,888**	**1,769**	**22**	**2,743**	**401**
Colorado	720	471	0	439	98
Idaho	302	139	0	198	0
Montana	660	453	w	716	76
Utah	303	218	0	641	166
Wyoming	903	488	w	749	61
PAD District V Total	**8,446**	**9,403**	**219**	**9,623**	**9,216**
Alaska	429	313	w	1,087	w
Arizona	393	294	w	140	0
California	4,278	5,947	114	4,868	6,491
Hawaii	307	203	0	248	w
Nevada	156	176	w	96	w
Oregon	685	673	w	1,054	211
Washington	2,198	1,797	w	2,130	1,446

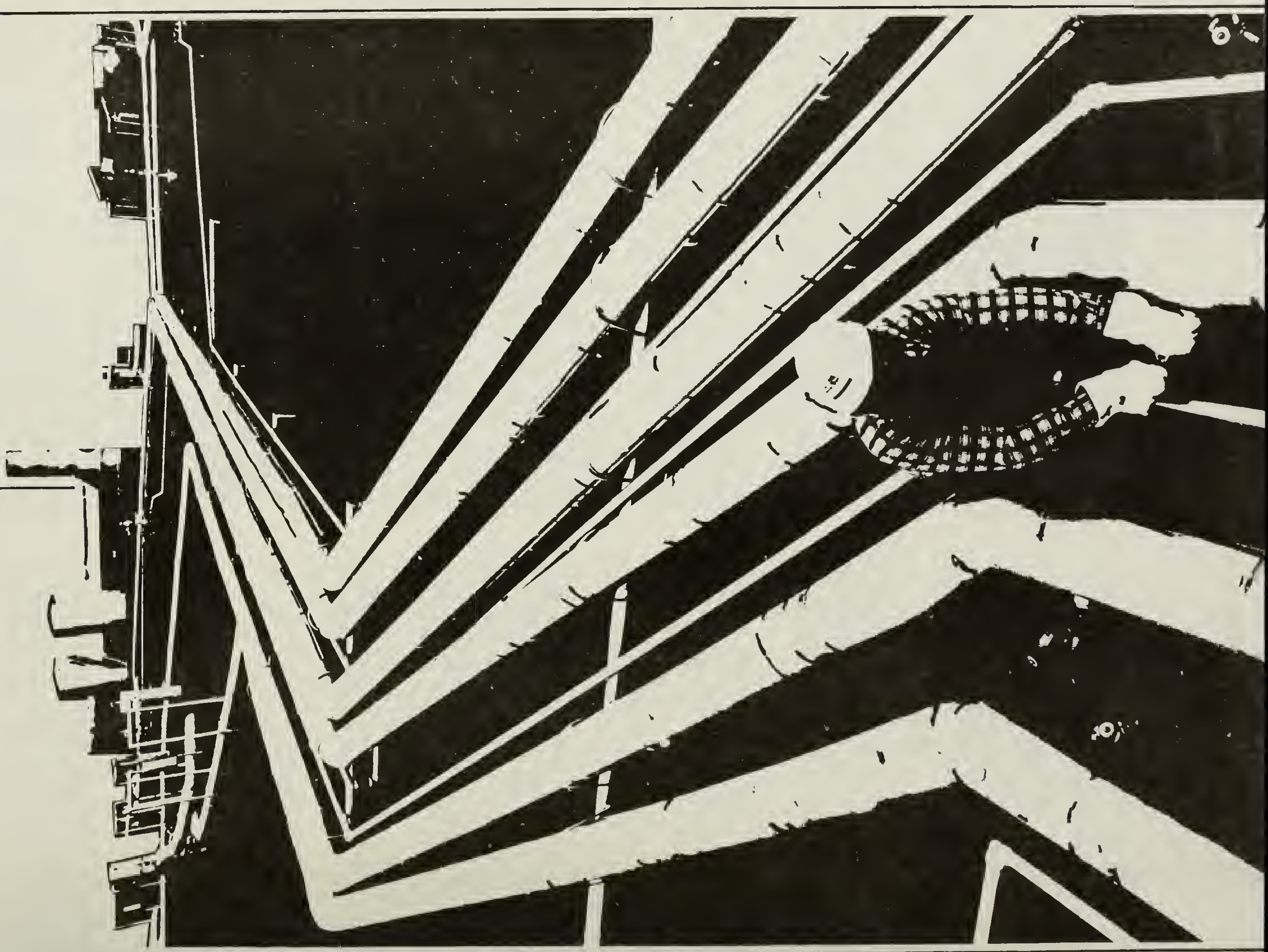
Table 37. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, March 1984
(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I Total	22,844	24,075	3,334	30,966	24,439
Connecticut	682	810	81	1,150	474
Delaware, D.C., Maryland	1,141	1,438	253	2,410	2,036
Florida	2,294	2,757	192	1,719	1,135
Georgia	1,169	1,533	85	968	272
Maine	376	418	98	744	621
Massachusetts	1,204	1,125	67	1,761	982
New Hampshire, Vermont	99	80	w	213	124
New Jersey	3,746	4,267	575	7,086	9,407
New York	5,306	3,015	380	4,227	3,793
North Carolina	1,323	1,315	571	1,575	678
Pennsylvania	2,633	3,739	452	4,515	2,814
Rhode Island	578	738	w	804	66
South Carolina	843	1,030	209	830	758
Virginia	1,255	1,641	318	2,701	1,246
West Virginia	195	169	19	263	33
PAD District II Total	23,797	22,086	1,556	24,935	4,064
Illinois	3,999	4,594	330	4,984	848
Indiana	2,822	2,865	161	3,395	730
Iowa	981	878	w	1,284	w
Kansas	1,413	1,296	28	1,714	56
Kentucky	1,659	1,170	143	1,115	229
Michigan	2,628	2,329	140	2,278	636
Minnesota	1,627	1,292	w	1,959	287
Missouri	864	690	w	860	w
Nebraska	410	222	0	328	0
North & South Dakota	499	325	0	886	w
Ohio	2,966	3,225	344	2,448	466
Oklahoma	1,075	806	213	1,280	202
Tennessee	1,244	1,161	102	839	154
Wisconsin	1,610	1,233	w	1,565	129
PAD District III Total	15,428	17,660	1,765	17,775	9,906
Alabama	980	895	47	918	557
Arkansas	174	200	w	305	40
Louisiana	2,015	3,593	413	3,468	3,683
Mississippi	1,268	1,356	10	1,068	427
New Mexico	352	210	w	340	9
Texas	10,639	11,406	1,259	11,676	5,190
PAD District IV Total	3,101	1,732	31	2,858	494
Colorado	788	456	0	473	116
Idaho	315	136	0	178	0
Montana	717	456	w	837	125
Utah	340	192	0	633	170
Wyoming	941	492	w	737	83
PAD District V Total	8,453	9,124	204	9,743	8,564
Alaska	484	339	w	1,153	w
Arizona	314	255	w	197	0
California	4,825	5,913	111	4,945	6,198
Hawaii	259	242	0	238	w
Nevada	124	168	w	80	w
Oregon	680	643	w	1,129	240
Washington	1,767	1,564	w	2,001	1,396
United States Total	73,623	74,677	6,890	86,277	47,467

Note: w = withheld to avoid disclosure of individual company data.
Source: See Explanatory Notes on Data Collection and Estimation.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Glossary



LIBRARY U. OF I. URBANA-CHAMPAIGN

Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chem-cal compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; CH-(CH)n-OH. Alcohol includes methanol and ethanol.

Alkylation. A refinery process for chemically combining soparaffin with olefin hydrocarbons. The product, alky-ate, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Deg API} = \frac{141.5}{\text{sp gr 60F/60F}} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene.

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor for asphalt is 5.5 barrels of 42 U.S. gallons per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation gasoline.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt and wax to barrels are given in the definitions for these products.

Barrels Per Calendar Day. See **Operable Capacity**.

Barrels Per Stream Day. See **Operable Capacity**.

Bi-Metallic. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of two metals (e.g. platinum, rhenium).

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon. (C_4H_{10}). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is covered by ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

> **Isobutane.** A normally gaseous branch-chain hydrocarbon, (C_4H_{10}). It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. It is extracted from natural gas or refinery gas streams.
>
> **Normal Butane.** A normally gaseous straight-chain hydrocarbon, (C_4H_{10}). It is a colorless paraffinic gas that boils at a temperature of 31.1 degrees F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C_4H_8), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil.

Catalytic Hydrocracking. A refining process for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. Hydrocracking is an efficient, relatively low temperature process using hydrogen and a catalyst.

Catalytic Hydrotreating. A process for treating petroleum fractions (e.g. distillate fuel oil and residual oil) and unfinished oils (e.g. naphthas, reformer feeds and heavy gas oils) in the presence of catalysts and substantial quantities of hydrogen to upgrade their quality.

Catalytic Reforming. The use of controlled heat and pressure with catalysts to effect the rearrangement of certain hydrocarbon molecules without altering their composition appreciably; the conversion of low-octane gasoline fractions into higher octane stocks suitable for blending into finished gasoline; also the conversion of naphthas to obtain a more volatile product of higher octane number.

Conventional. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of a metal and a non-metal (e.g. platinum, alumina).

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratifed carbonaceous rocks are either solid or brittle and are highly combustible. In-

cludes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Distillation. The refining process of separating crude oil components by heating and subsequent condensing of the fractions by cooling.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite and oil shale. Drip gases are also included, but topped crude oil (residual) oil and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign according to the following:

> ***Domestic.*** Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 U.S.C. 1331.
>
> ***Foreign.*** Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Delayed Coking. A process to produce low Conradson carbon gas oil for catalytic cracking feedstock and for gasoline.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

> ***No. 1 Fuel Oil.*** A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 degrees F. at the 10-percent point and 550 degrees F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.
>
> ***No. 2 Fuel Oil.*** A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 specifies for this grade distillation temperatures at the 90-percent point between 540 degrees and 640 degrees F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.
>
> ***No. 1 and No. 2 Diesel Fuel Oils.*** Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D975:
>
> > ***No. 1-D.*** A volatile distillate fuel oil with a boiling range between 300-575 degrees F. and used in high-speed diesel engines generally operated under variations in speed and load. Includes type C–B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.
> >
> > ***No. 2-D.*** A gas oil type distillate of lower volatility with distillation temperatures at the 90-percent point between 540-640 degrees F. for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R–R diesel fuel used for railroad locomotive engines, and Type T–T for diesel-engine trucks. Properties are defined in ASTM Specification D975.
>
> ***No. 4 Fuel Oil.*** A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV–F–815C; its kinematic viscosity is between 5.8 and 26.4 centistokes at 100 degrees F. Also included is No. 4–D, a fuel oil for low- and medium-speed diesel engines that conforms to ASTM Specification D975.

Eastern Hemisphere. That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electric Energy (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous straight-chain hydrocarbon, (C2H6). It is a colorless paraffinic gas that boils at a temperature of –127.48 degrees F. It is extracted from natural gas and refinery gas streams.

Ethylene. An olefinic hydrocarbon, (C2H4), recovered from refinery processes or petrochemical processes.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Fluid Coking. A thermal process utilizing the fluidized-solids technique for continuous conversion of heavy, low-grade oils into lighter products.

Gasohol. See ***Motor Gasoline (Finished).***

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. Derives its name from having originally been used in the manufacture of illuminating gas. Now supplies distillate-type fuel oils and diesel fuel, also cracked to produce gasoline.

Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation or motor gasoline.

Idle Capacity. The component of operable capacity that is not in operation and not under active repairs, but capable of being placed in operation within 30 days; and capacity not in operation but under active repairs that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported

crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Isobutane. See ***Butane.***

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule. Used to convert normal butane into isobutane, an alyklation process feedstock, and normal pentane and hexane into isopentane and isohexane, high-octane gasoline components.

Kerosene. A petroleum distillate that boils at a temperature between 300-550 degrees F., that has a flash point higher than 100 degrees F. by ASTM Method D56, that has a gravity range from 40-46 degrees API, and that has a burning point in the range of 150-175 degrees F. Included are the two classifications recognized by ASTM D3699: No. 1-K and No. 2-K, and all grades of keresene called range or stove oil which have properties similar to No. 1 fuel oil, but with a gravity of about 43 degrees API and a maximum end-point of 625 degrees F. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with an average gravity of 40.7 degrees API, and a 10 percent distillation temperature of 400 degrees F. It is covered by ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type; it is used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and nonassociated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Liquefied Petroleum Gases (LPG). Ethane, Ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/ or refrigeration they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane. Excludes still gas used for chemical or rubber manufacture which is reported as a petrochemical feedstock and also excludes liquefied petroleum gases intended for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstock or other uses.

Lubricating Oils. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include:

Bright Stock. A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.

Neutral. A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100 degrees F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.

Other. A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere, e.g., petrolatum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, speciality oils and medicinal oils.

Motor Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Specifications for motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, include a boiling range of 122-158 degrees F. at the 10-percent point to 365-374 degrees F. at the 90-percent point and a Reid vapor pressure range from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blend stock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol) in which 10 percent or more of the product is alcohol.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range with an average gravity of 52.8 degrees API and 20 to 90 percent distillation temperatures of 290 degrees to 470 degrees F, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specification of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: Ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e. products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C_5H_{12}), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Normal Butane. See ***Butane.***

OPEC. The acronym for the Organization of Petroleum Exporting Countries, oil-producing and exporting countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation, and not under active repairs but capable of being placed in operation within 30 days; or not in operation but under active repairs that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed in an atmospheric distillation facility during a twenty-four hou period after making allowances for the following limi tations:

The capability of downstream facilities to absor the output of crude oil processing facilities of a giv en refinery. No reduction is made when a planne distribution of intermediate streams through othe than downstream facilities is part of a refinery' normal operation.

The types and grades of inputs to be processed.

The types and grades of products expected to b manufactured.

The environmental constraints associated with re finery operations.

The reduction of capacity for scheduled downtim such as routine inspection, mechanical problems maintenance, repairs and turnaround.

The reduction of capacity for unscheduled down time such as mechanical problems, repairs, an slowdowns.

Barrels Per Stream Day. The amount a unit can pro ess running at full capacity under optimal crude an product slate conditions.

Operating Capacity. The component of operable capa ity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refine and consumed as raw materials. Includes hydroge coal tar derivatives, gilsonite, and natural gas receive by the refinery for reforming into hydrogen. Natural ga to be used as fuel is excluded.

Pentanes Plus. A mixture of hydrocarbons, mostly pe tanes and heavier, extracted from natural gas. Include isopentane, natural gasoline and plant condensate.

Petrochemical Feedstock Use. Chemical feedstock derived from petroleum, principally for the manufactur of chemicals, synthetic rubber and a variety of plastic The categories reported are "Naphtha-Less than 40 degrees F. end-point" and "Other oils over 400 degree F. end point."

Naphtha-Less Than 400 Degrees F. End-Point. naphtha with an end point of less than 400 degrees F that is intended for use as a petrochemical feed stock.

Other Oils-Over 400 Degrees F. End-Point. Oils wit an end point over 400 degrees F. that is intended fo use as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the con densation process in cracking. This product is reporte as marketable coke or catalyst coke. The conversio factor is 5 barrels of 42 U.S. gallons per short ton.

Marketable Coke. Those grades of coke produced i delayed or fluid cokers which may be recovered a relatively pure carbon. This "green" coke may be sol as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (i.e., catalytic cracking) carbon is deposited on the catalyst thus, deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refinery process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400 F. end-point, other oils-over 400 F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Petroleum Refinery. An installation that manufacturers finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks excludes stocks of foreign origin that are held in bonded warehouse storage.

Propane. A normally gaseous straight-chain hydrocarbon, (C_3H_8). It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees F. It is extracted from natural gas or refinery gas streams. It includes all products covered by Gas Processors Association Specifications for commercial propane and HD-5 propane and ASTM Specification D1835.

Propylene. An olefinic hydrocarbon, (C_3H_6), recovered from refinery processes or petrochemical processes.

Residual Fuel Oil. The topped crude of refinery operations which includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D396 and Federal Specification VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2 (NATO Symbol F-77), and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust pallative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Special Naphthas. All finished products within the gasoline range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point and have a boiling range of 90 degrees to 220 degrees F. "Special naphthas" includes all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and/or refinery fuel use.

Petrochemical Feedstock Use. Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc. are considered petrochemical products; therefore, only their feedstock equivalents are included.

Fuel Use. All other still gas.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking is used to increase the yield of gasoline obtainable from crude oil.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid-being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal cracking process in which heavy vacuum-still bottoms produced on the primary distillation unit are cracked to increase production of distillate products.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series pre-

dominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42-U.S. gallon barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics:

Penetration at 77 degrees F. (D1321)-60 maximum. Viscosity at 210 degrees F. in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics:

Viscosity at 210 degrees F. (D88)-59.9 SUS (10.18 centistokes) maximum. Oil Content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics:

Viscosity at 210 degrees F. (D88)-59.9 SUS (10.18 centistokes) maximum. Oil Content (D721)-0.51 percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that includes North and South America and adjacent islands.

Bureau of Mines Petroleum Refining Districts and PAD Districts

The following are the Bureau of Mines petroleum refining districts which make up the PAD districts:

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian #1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

PAD District II

Appalachian #2: The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

Indiana—Illinois—Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

Minnesota—Wisconsin—North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma—Kansas—Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana—Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

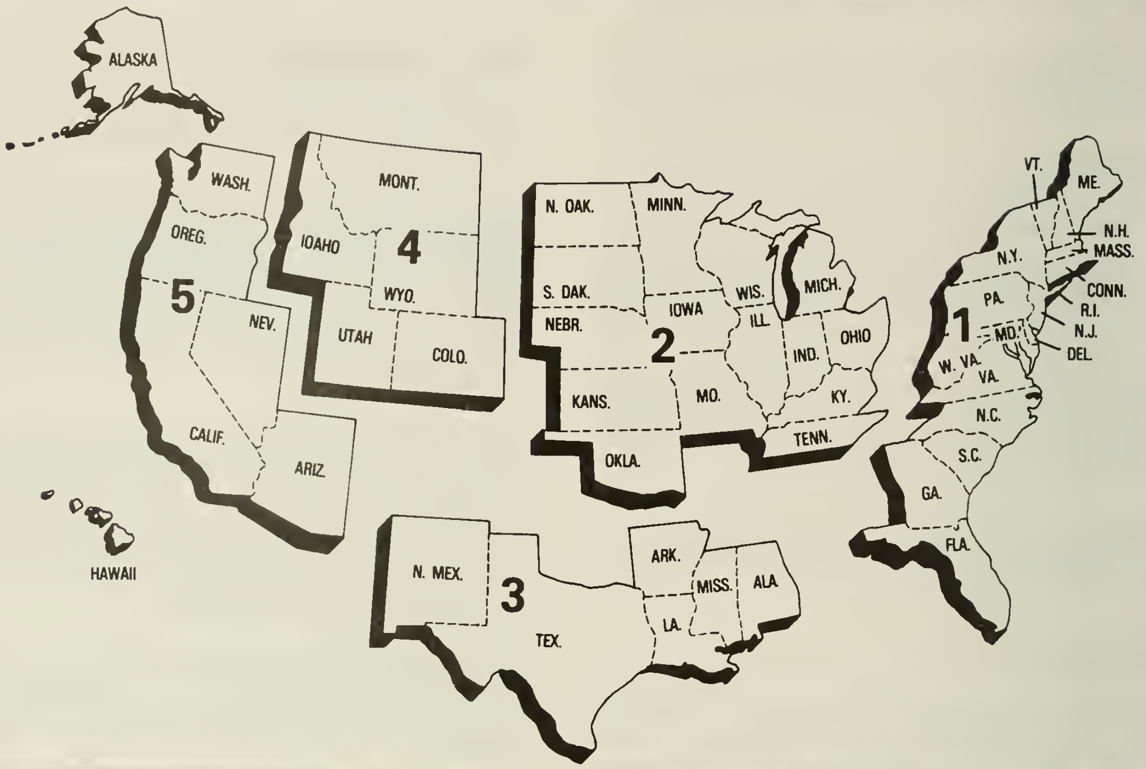
PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

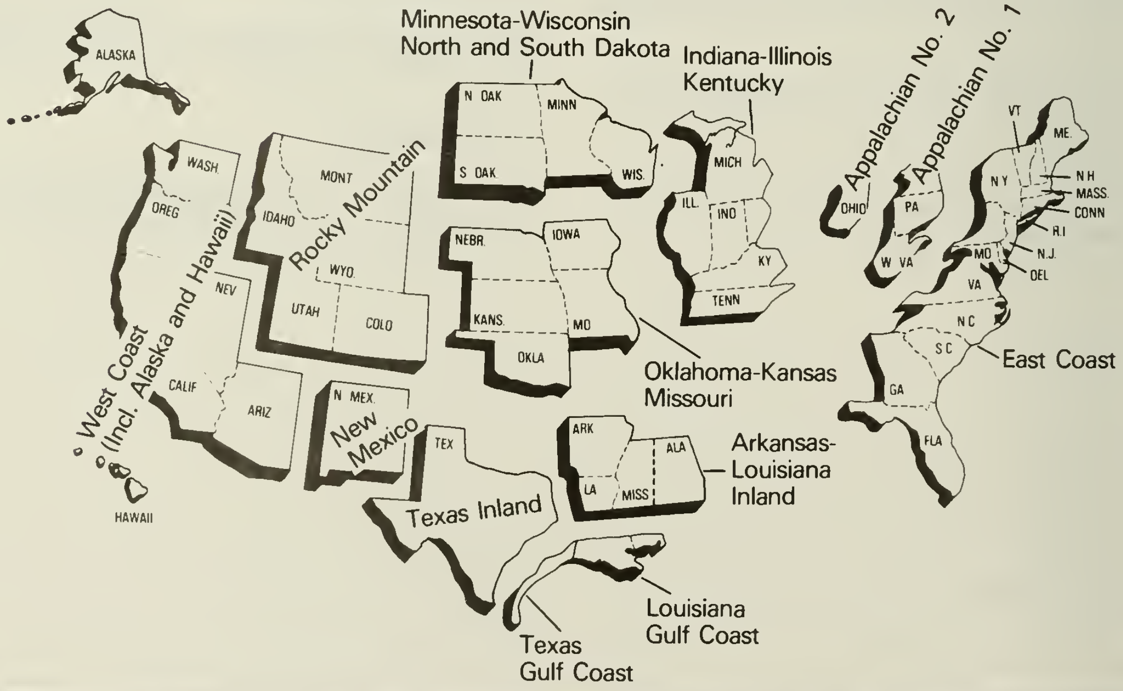
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

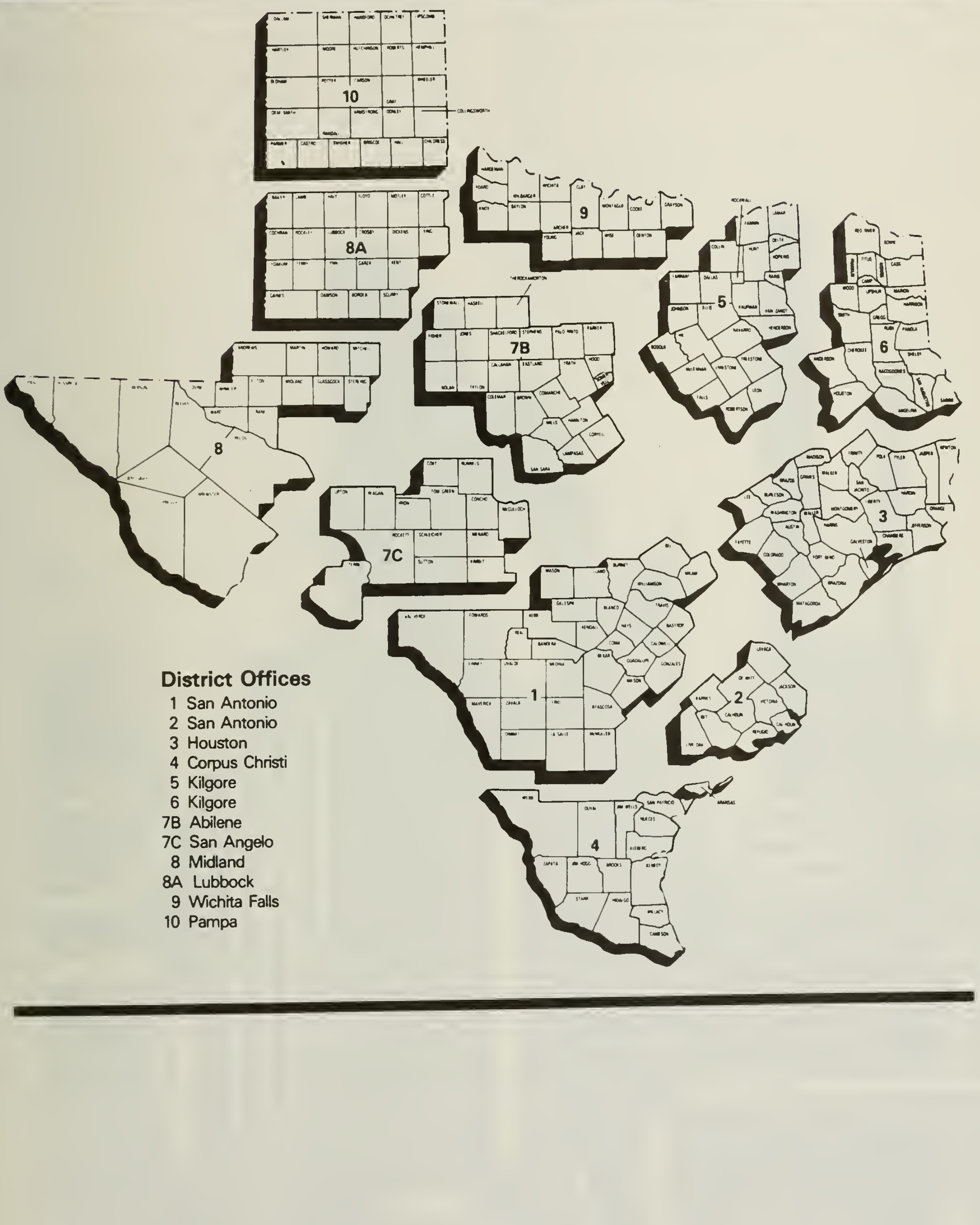
Petroleum Administration for Defense (PAD) Districts



Bureau of Mines Refining Districts



District Map Oil and Gas Division Railroad Commission of Texas

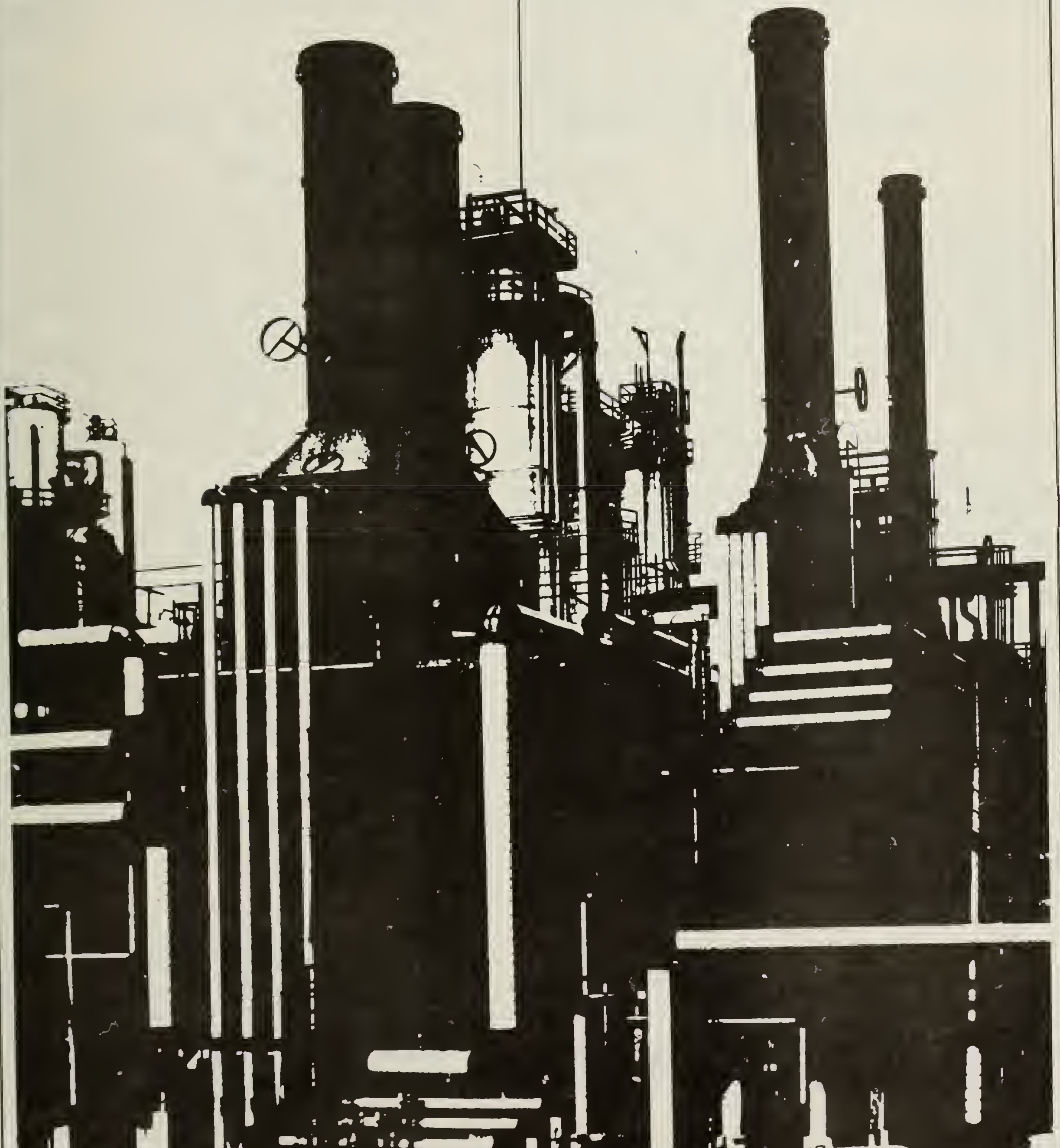


District Offices

- 1 San Antonio
- 2 San Antonio
- 3 Houston
- 4 Corpus Christi
- 5 Kilgore
- 6 Kilgore
- 7B Abilene
- 7C San Angelo
- 8 Midland
- 8A Lubbock
- 9 Wichita Falls
- 10 Pampa

LIBRARY U. OF I. URBANA-CHAMPAIGN

Explanatory Notes



LIBRARY U. OF I. URBANA-CHAMPAIGN

Explanatory Notes

Note 1: Data Collection Methodology

Background

Beginning in January 1983, the Energy Information Administration (EIA) unified its petroleum supply data collection activities into the Petroleum Supply Reporting System (PSRS). The PSRS represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The primary focus of the consolidation has been to revise the weekly and monthly survey reporting forms to assure consistency in form layout, preparation instructions, and definitions. As a result, a new set of survey forms were implemented in January 1983. The following are the new form numbers and their corresponding predecessor forms:

New Form Number	Name	Old Form Number
EIA-800	Weekly Refinery Report	EIA-161
EIA-801	Weekly Bulk Terminal Report	EIA-162
EIA-802	Weekly Product Pipeline Report	EIA-163
EIA-803	Weekly Crude Oil Stocks Report	EIA-164
EIA-804	Weekly Imports Report	EIA-165
EIA-805	Weekly Shipments from Puerto Rico to the United States Report	—
EIA-810	Monthly Refinery Report	EIA-87
EIA-811	Monthly Bulk Terminal Report	EIA-88
EIA-812	Monthly Product Pipeline Report	EIA-89
EIA-813	Monthly Crude Oil Report	EIA-90
ERA-60	Monthly Imports Report	ERA-60
EIA-815	Monthly Shipments from Puerto Rico to the United States Report	FEA-P133-M-0
EIA-816	Monthly Natural Gas Liquids Report	EIA-64
EIA-817	Monthly Tanker and Barge Movement Report	EIA-170

Forms EIA-800 through 805 comprise the Weekly Petroleum Supply Reporting System (WPSRS). This system is designed to collect basic refinery operations and product stock data for major products on a weekly basis. Data from the WPSRS are published in the *Weekly Petroleum Status Report (WPSR)* and are also used to calculate the preliminary statistics in the "Summary Statistics" section of the *Petroleum Supply Monthly (PSM)*. A description of the WPSRS survey forms follows in Note 1.1.

Forms EIA-810-813, 815-817 and ERA-60 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery operations data, refinery, bulk terminal and pipeline stocks data, crude oil and petroleum product imports data and movements of petroleum products and crude oil between PAD Districts data. These surveys are the primary source of data for the "Summary Statistics" and "Detailed Statistics" sections of the *PSM*. A description of MPSRS survey forms follows in Note 1.2.

Data are also obtained in magnetic tape form from the Bureau of the Census on a monthly basis. These tapes contain aggregated import and export statistics that are used in the preparation of the *PSM*. A description of the Census data follows in Note 1.3.

Note 1.1: Weekly Petroleum Supply Reporting System (WPSRS)

Background

The EIA first began publishing weekly petroleum supply statistics in April 1979 in response to the Iranian oil crisis. Initially, the published data were taken from the American Petroleum Institute (API) *Weekly Statistical Bulletin*. However, in January 1980 the EIA began to publish weekly statistics from its own surveys, with the exception of imports statistics which the EIA did not begin collecting until June 1980.

The weekly surveys collect data comparable to those collected on a monthly basis. Selected petroleum companies report weekly data to the EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports each shipment entering the United States. On Form EIA-805, a company shipping unfinished oils and finished petroleum products into the United States from Puerto Rico reports each shipment. Current weekly data and the most recent monthly data are used to estimate the totals that are published in the *Weekly Petroleum Status Report*.

Sample Frame

The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Sampled companies report data only for facilities in the 50 States and District of Columbia.

The sample for each survey is taken from the following universe:

EIA-800: Based on the EIA-810 universe, which includes all petroleum refineries in the United States and

its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and plants that produce finished motor gasoline through mechanical blending. The selected sample size is 215.

EIA-801: Based on the EIA-811 universe, which includes all bulk terminal facilities in the United States and its territories that have either a total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The selected sample size is 93.

EIA-802: Based on the EIA-812 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that transport only natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies that transport products covered in the weekly survey are included. The selected sample size is 65.

EIA-803: Based on the EIA-813 universe, which consists of all companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-804: Based on the ERA-60 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico. The selected sample size is 65.

EIA-805: Based on the EIA-815 universe, which includes all shippers of unfinished oils and petroleum products into the United States from Puerto Rico. Four companies report.

Sampling Method

The cut-off method is the sampling procedure used for all weekly surveys except the EIA-802, which uses the monthly universe in its entirety. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous 12-month period. Companies are chosen for the sampling, beginning with the largest and adding companies until the total sample covers 90 percent of the total for the previous time period for each product published in the *Weekly Petroleum Status Report.*

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. The report period closes each Friday at 7 a.m. All canvassed firms and terminal operations companies must file by 5 p.m. on the following Monday.

Estimation and Imputation

After company reports have been checked and entere into the weekly data base, weekly totals for given products are estimated by using the following formula.

The total reported by all companies for the most recen month (M_t) is divided by the amount reported by th sample of companies for the most recent month (M_s) The result is multiplied by the amount reported by th sample of companies for the current week (W_s). The answer, W_t, is an estimate of the amount that would hav been reported by all companies for the current week i all companies reported each week.

$$W_t = \frac{M_t}{M_s}(W_s)$$

This procedure is used to estimate total weekly inputs to refineries and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of weekly imports is the sum of the smoothed ratio multiplied by the weekly values and estimates for shipments from Puerto Rico. Imports of other oils includes an adjustment from Census data for unlicensed products because of coverage differences between the monthly imports data and Census data.

Explicit imputation is done for companies which do not respond in a given week. The imputed values are exponentially smoothed means of recent reports from the specific company.

Response Rates

The response rate for the published estimates is usually between 95 and 98 percent.

Note 1.2: Monthly Petroleum Supply Reporting System (MPSRS)

Background

The MPSRS was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that have been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems

were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movements of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS is the first effort to make them all consistent and comparable.

Respondent Frame

EIA-810: All petroleum refineries and plants that produce finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, the Hawaiian Foreign Trade Zone, and Guam. Approximately 313 respondents report on the EIA-810.

EIA-811: All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have a total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline, regardless of ownership of the material. Approximately 328 respondents report on the EIA-811.

EIA-812: All products pipeline companies that carry petroleum products (including interstate, intrastate and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 94 respondents report on the EIA-812.

EIA-813: All companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-815: All licensed importers and importers of record shipping petroleum products from Puerto Rico into the 50 States and the District of Columbia.

Import data from the ERA-60 and EIA-815 are integrated into the import statistics reported in the *PSM.*

EIA-816: All operators of facilities designed to extract liquid hydrocarbons from natural gas stream (natural gas processing plants) or to separate a hydrocarbon stream into its component products, i.e., propane, butane, natural gasoline, etc. (fractionators). Approximately 990 respondents report on the EIA-816.

EIA-817: All known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are about 50 respondents.

ERA-60: All licensed importers and importers of record importing crude oil and petroleum products into the United States and Puerto Rico. The respondent universe consisted of approximately 1,100 firms as of July 31, 1982. However, only a selected 250 importers must report each month regardless of import activity. All others must report only for a month in which they actually had imports. The respondent universe for this survey is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

EIA utilizes a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review industry publications such as the *Oil and Gas Journal* and *LP Gas Almanac* for information on facilities or companies going into operation or closing down. These are augmented by articles in newspapers, letters from respondents indicating changes in status and information received from survey systems operated by other offices.

Periodically an extensive survey study is conducted to completely refresh the frames. This involves consolidating information from every known source including State agencies, federal agencies (e.g., EPA, Corps of Engineers, Census Bureau, etc.), and private industry directories. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Completed forms are required to be postmarked by the 20th day following the end of the report month, with the exception of the EIA-815 and ERA-60 which are due 15 work days following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline, for their data. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed only for nonresponding companies that submitted reports the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by submission of actual data. Data for nonrespondents on the EIA-815 and 817, and ERA-60 are not imputed.

Response Rates

As of the filing deadline, the response rates of the EIA-810 through EIA-813 respondents is over 90 per-

cent. The response rate for the EIA-816 is over 85 percent and for the EIA-817 it is 98 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Names of companies that fail to file for 2 consecutive months are forwarded for further noncompliance action.

In July 1983, the ERA-60 survey had a response rate of 99.9 percent by the filing deadline. The universe was 1,100 firms at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard follow-up of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. In addition, response is cross-checked with response on the Petroleum Licensing Decrementation System (PLDS), a listing of each month's importers. The response rate is generally 98 to 99 percent by the time the data are first published.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Note 1.3: Census Import (IM-145) and Export (EM-522 and EM-594) Data

Background

Each month the EIA purchases magnetic tapes of aggregated import and export statistics from the Bureau of the Census. These data provide the only source of export statistics and are used to augment the import data collected by the EIA. Export statistics and import data from the Census tapes on liquefied petroleum gases and bonded ship bunkers are published in the *PSM*.

Import Statistics (IM-145)

Coverage

The import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise in-transit through the United States, when documented with Customs as an in-transit movement.

2. Shipments from anywhere to U.S. possessions and shipments from U.S. possessions to the United States. (U.S. possessions include Puerto Rico, the Virgin Islands, Guam, and American Samoa.)

3. U.S. merchandise that was held in foreign countries by the U.S. Armed Forces and is returned to the United States for the use of the Armed Forces.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501, 7505, and 7506).

Imported petroleum is reported as *Imports for Consumption*. Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics (EM-522 and EM-594)

Coverage

The export statistics reflect both government and nongovernment exports of domestic and foreign merchandise from the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. All shipments from U.S. possessions, regardless of whether the shipments are sent to the United States, to other U.S. possessions, or to foreign countries.

2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.

3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Exporters are required to file Shipper's Export Declarations with Custom's officials. The only exceptions are those exporters who have been authorized to submit data directly to the Bureau of Census on magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations.

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 2: Supply

The components of petroleum supply are field production, refinery production, imports, and stock withdrawal or addition:

Field Production is the sum of crude oil production (including lease condensate), natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation and revenue agencies. For further explanation, see Explanatory Note 3.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-816, *Monthly Natural Gas Liquids Report*. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.2.

Refinery Production of petroleum products is reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports of crude oil and petroleum products are reported monthly on Form ERA-60, *Report of Oil Imports into the United States and Puerto Rico*, and Form EIA-815, *Shipments of Refined Products (Including Unfinished Oils) from Puerto Rico to the United States*. In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501, 7505, and 7506. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum gases (LPG), where the Census data show a much higher level of imports than EIA data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and LPGs are not licensed products. Therefore, respondents that import only LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha- and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

Stock Withdrawal (+) or Addition (−) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the same month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (−) would represent a buildup of stocks and a reduction in the amount of petroleum supplies distributed for domestic consumption. For a description of survey forms used to make stock withdrawal or addition calculations see Explanatory Note 5.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition.

Crude oil supply is the sum of field production, imports and stock withdrawals or additions. Crude oil disposition is the sum of exports, refinery input, losses and product supplied. Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used.

Note 3: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the State conservation agencies, which collect crude oil production values for tax purposes. The U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of ten State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports

from the State conservation agencies and the U.S. Geological Survey. The ten States that do not report monthly values are Indiana, Kentucky, Missouri, Arkansas, Utah, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly COPS information becomes available. Table 11 of this publication provides information on crude oil production for the most recent month for which COPS values are available. In order to present more timely crude oil production values, the EIA's Dallas Field Office prepares a series of State level estimates which are based on historical production patterns and are summed to obtain the monthly crude oil production values shown in the summary statistics of this publication.

The individual State level estimates are either exponential curve fitted projections based on recent data or are constant level projections based on the average production rate during a recent time period. In some cases, adjustments are made to these estimates based on additional information on expected changes in production rates supplied by a State agency, a trade association, or an individual field operator.

Note 4: Disposition

The components of petroleum disposition are crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Crude Oil Losses is the sum of crude oil losses at refineries. Crude oil losses at refineries are reported on Form EIA-810, *Refinery Report*.

Refinery Inputs of crude oil, natural gas plant liquids, and other liquids are reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published inputs of unfinished oils and of motor and aviation gasoline blending components equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-810, by refineries located in these places.

Product Supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, minus crude oil losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) data were misreported or reported late, (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel oil. These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel oil were reported as either distillate or residual fuel oil and included in product supplied for these products.

Note 5: Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-810, *Monthly Refinery Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form EIA-800, *Weekly Refinery Report*, and on Form EIA-803, *Weekly Crude Oil Stocks Report*. Primary stocks of petroleum products are summed from data reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, Form EIA-810, *Monthly Refinery Report*, Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-812, *Monthly Product Pipeline Report*. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-800, *Weekly Refinery Report*, Form EIA-801, *Weekly Bulk Terminal Report*, and Form EIA-802, *Weekly Crude Oil Stocks Report*. For survey descriptions and other details, see Explanatory Notes 1.1 - 1.3.

Note 6: Average Stock Levels

The graphs displaying monthly stock levels of crude oil, motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases, and other products provide the user with recent data as well as a summary of data from January through December or from July through June for the most recent 3-year period. This summary takes the form of an *average range* that includes seasonal variation determined from a longer time period. The

average range represents the historical pattern; it is not a forecast.

These curves are updated semiannually (On April 1 and October 1), by basing the *average ranges* on a more recent time period. Each 3-year data series is adjusted by dropping the first 6 months and including the most recent 6 months.

For each data series, the monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive. The series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported stock levels. The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends and irregularities as the original data. For crude oil stocks, the derived seasonal factors are very small relative to crude oil stock levels. Therefore, the seasonal factors for distillate fuel oil, residual fuel oil, liquefied petroleum gases and other products are derived using monthly data from 1974-1980. For motor gasoline, the seasonal factors are based on monthly data from 1975, 1976, 1978, 1979 and 1980. In 1977, there was virtually no seasonal behavior in motor gasoline stocks. Monthly stock levels stayed at the same high level for the entire year. In addition, the seasonal patterns in 1973, 1974 and 1977 were not representative of the recent past, and these years were not used in the determination of seasonal patterns for motor gasoline stocks. Because of these differences in the year-to-year seasonal fluctuation of motor gasoline, the evidence for the illustrated seasonal patterns for crude oil, distillate fuel oil, residual fuel oil, liquefied petroleum gases and other products is stronger than is the evidence for the illustrated seasonal patterns for motor gasoline.

In some cases, these seasonal patterns do not show a smooth transition from month to month. For example, the June factor for residual fuel oil is slightly less than the May and July values, making a bump in the curve. As there is little difference in the magnitude of these seasonal factors, it is possible that this variation is due to the small number of observations (7 years) and the data variability.

After seasonal factors are derived, the most recent 3-year period (from January through December or from July through June) is deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard error of the deseasonalized 36 months is calculated adjusting for extreme data points. The width of the *average range* is twice this standard error.

The upper curve of the *average range* is defined as the average plus the seasonal factors plus the standard error. The lower curve is defined as the average plus the seasonal factors minus the standard error.

Note 7: Movements

Movements of crude oil between PAD Districts are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Petroleum product movements are reported on Forms EIA-817, *Monthly Tanker and Barge Movement Report*, and EIA-812, *Monthly Product Pipeline Report*. Net receipts is the difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge. For survey descriptions and other detail, see Explanatory Note 1.2.

Note 8: Preliminary Monthly Statistics

Weekly data (Forms EIA-800, 801, 802, 803, and 804) are used to estimate the most recent monthly values for the *Summary Statistics* section. Since some of the weekly reporting periods overlap two adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To estimate crude oil and petroleum product imports, crude oil input to refineries and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel oil, and residual fuel oil) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the two weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of the earlier of the two weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 3.

Note 9: Notes on Tables

Note 9.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (−), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.

- Natural Gas Plant Production is the sum of Natural Gas Liquids and Finished Petroleum Products Field Production in Table 4.

- Petroleum Products Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.

- Total Crude Oil and Petroleum Products Ending Stocks appear in thousand barrels in Table 2.

Note 9.2 Crude Oil Supply and Disposition statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (–), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.

- Crude Losses and Product Supplied appear as labeled in Table 4.

- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousand barrels in Table 1.

- Total Crude Oil Ending Stocks appear in thousand barrels in Table 2.

- Total Imports appear in Table 4.

Note 9.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (–), Exports, and Product Supplied appear as labeled in Table 4.

- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (–), Exports, and Product Supplied appear as labeled in Table 4.

- Ending Stocks appear in thousand barrels in Table 2.

Note 9.5 Liquefied Petroleum Gases Supply and Disposition statistics represent the aggregation of statistics on ethane, propane, butane, butane-propane mixtures, ethane-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stocks Withdrawal (+) or Addition (–), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.

- Ending stocks appear in thousand barrels in Table 2.

Note 9.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.

- Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (–), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3): Crude oil (including lease condensate) production for *Alaska*, *Lower 48 States*, and *Total U.S.* are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 3), and taking the difference to equal production in the Lower 48 States.

- Line (5): *SPR Imports* are reported on Survey Form ERA-60.

- Line (12): *Total Other Sources* equals crude oil stock withdrawal (+) or addition (–) plus unaccounted for crude oil minus crude losses in Table 2.

- Line (14): Natural gas plant liquids (NGPL) *Production* equals field production of natural gas liquids (NGL) plus field production of finished petroleum products in Table 2.

- Line (15): NGPL *Imports* equals the sum of the im-

ports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.

- Line (16): NGPL *Stock Withdrawal (+) or Addition (−)* is equal to the sum of stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.

- Line (17) equals the sum of lines (14), (15), and (16).

- Line (18): Unfinished oils and gasoline blending components *Stock Withdrawal (+) or Addition (−)* equals stock withdrawal (+) or addition (−) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.

- Line (20): *Other Hydrocarbons and Alcohol New Supply* equals the field production of same in Table 2.

- Line (21): *Refinery Processing Gain* is a balancing item equal to total refinery production minus total refinery input in Table 2.

- Line (23): *Total Other Liquids* equals the sum of lines (18) through (22).

- Line (24): *Total Production of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil product supplied in Table 2.

- Line (25): *Gross Imports of Refined Products* equals imports of LPG plus imports of finished petroleum products in Table 2.

- Line (26): *Exports of Refined Products* equals exports of LPG plus exports of finished petroleum products in Table 2.

- Line (27): *Net Imports of Refined Products* equals the difference between lines (25) and (26).

- Line (28): *Total New Supply of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; minus crude oil product supplied plus imports of LPG and finished petroleum products; minus exports of LPG and finished petroleum products in Table 2.

- Line (29): *Refined Products Stocks Withdrawal (+) or Addition (−)* equals the sum of stock withdrawal (+) or addition (−) for LPG and finished petroleum products in Table 2.

- Line (30): *Total Petroleum Products Supplied for Domestic Use* equals total products supplied in Table 2.

- Lines (31) through (35) equal the respective products supplied in Table 2.

- Line (36): *Other Products Supplied* equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock use, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, unfinished oils, motor gasoline blending components, aviation gasoline blending components and miscellaneous products supplied in Table 2.

- Line (37): *Total Product Supplied* is equal to total products supplied in Table 2.

- The sum of lines (38) and (39), stocks of *Crude Oil and Lease Condensate (Excluding SPR)* and stocks held by the *Strategic Petroleum Reserve*, equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-813.

- Line (43): stocks of *Refined Products*, equals the sum of LPG and finished petroleum product stocks in Table 2.

Note 10: New Stock Basis

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

- Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).

- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,420; and 1982 - 1,462.

- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).

- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.

- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.

- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.

- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.

- Stock withdrawal calculations beginning in 1975, 1981, 1983 were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Products Supply and Disposition" table in the Summary Statistics, is now reported on a component basis (ethane, propane, normal butane, isobutane and pentanes plus). Most of these stocks will now appear in the "Liquefied Petroleum Gases Supply and Disposition" table of the Summary Statistics. This change will affect stocks reported and stock withdrawals in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 1983 - 108

- Other Petroleum Products: 1983 - 248

Note 11: Stocks of Alaskan Crude Oil

Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 12: Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting systems.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings throughout 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. This difference increased to about 4 percent in 1979 and 5 percent in 1980. There are two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference—in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied. EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years. EIA has recently published a study of the quality of these FHWA data.[1]

---

[1] Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *Error Profile of the Motor Fuel Taxation Data used to Establish and Monitor State Emergency Conservation Targets* (Washington, D.C: December, 1981).

Finished Motor Gasoline Product Supplied on Old and New Basis (Thousand Barrels per Day)

	1979				1980			
	EIA Reported	API Recast	EIA Recast	FHWA[1]	EIA Reported	API Recast	EIA Recast	FHWA[1]
Jan	6,830	7,230	7,084-7,246	6,984	6,323	6,789	6,630-6,791	6,672
Feb	7,254	7,496	7,389-7,568	7,538	6,596	6,983	6,831-7,003	6,830
Mar	7,229	7,414	7,301-7,463	7,316	6,406	6,753	6,607-6,768	6,713
Apr	7,055	7,300	7,187-7,353	7,375	6,800	7,014	6,886-7,052	6,981
May	7,213	7,429	7,313-7,475	7,428	6,729	6,954	6,823-6,984	7,044
Jun	7,191	7,483	7,350-7,516	7,441	6,657	6,966	6,824-6,991	7,049
Jul	6,902	7,241	7,105-7,266	7,299	6,743	6,973	6,960	7,132
Aug	7,330	7,546	7,426-7,588	7,619	6,648	6,841	6,828	7,090
Sep	6,881	7,122	7,016-7,262	7,232	6,510	6,692	6,962	6,685
Nov	6,791	7,068	6,956-7,122	7,142	6,234	6,507	6,516	6,951
Dec	6,730	7,106	6,966-7,127	7,064	6,632	6,948	6,936	6,993
Average	7,034	7,302	7,183-7,347	7,309	6,579	6,882	6,806-6,889	6,925

[1] FHWA gasoline statistics published in their 1979 Table MF-33G, 08-06-80, contain aviation gasoline as well as motor gasoline. Only motor gasoline data are included in published 1980 data. Consequently, the 1979 data shown above were reduced by subtracting aviation gasoline product supplied quantities as published by EIA in the 1979 *Petroleum Statement Annual*. The 1980 FHWA data published in their 1980 Table MF-33GA, August 1981, did not require this adjustment.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oil produced by a refinery is shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981 this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1980 as published (adjusted) and on the same basis as 1981 statistics are now being completed (unadjusted) to permit comparison between 1980 and 1981 data series. Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Adjusted and Unadjusted Refinery Production, and Unadjusted Product Supplied of Distillate and Residual Fuel Oils, by Month for 1979 and 1980 (Thousand Barrels Per Day)

1979

	Distillate Fuel Oil				Residual Fuel Oil			
Month	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,043	3,108	65	4,646	1,912	1,946	34	3,594
Feb.	2,888	2,945	57	4,869	1,792	1,822	30	3,625
Mar.	3,019	3,026	7	3,671	1,719	1,723	4	3,243
Apr.	2,945	2,978	32	3,048	1,639	1,656	17	2,524
May	3,066	3,093	27	3,025	1,586	1,600	14	2,517
Jun.	3,153	3,187	35	2,743	1,548	1,566	18	2,601
Jul.	3,305	3,344	38	2,601	1,575	1,594	20	2,471
Aug.	3,321	3,359	38	2,799	1,584	1,603	20	2,570
Sep.	3,354	3,306	– 48	2,599	1,627	1,602	– 25	2,584
Oct.	3,251	3,217	– 34	3,085	1,629	1,612	– 17	2,523
Nov.	3,239	3,200	– 39	3,208	1,736	1,716	– 20	2,795
Dec.	3,221	3,238	17	3,725	1,894	1,903	9	3,022
Average	3,152	3,169	16	3,327	1,687	1,695	8	2,834

1980

	Distillate Fuel Oil				Residual Fuel Oil			
Month	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,013	3,093	80	3,794	1,771	1,812	41	3,108
Feb.	2,766	2,888	122	3,834	1,773	1,836	63	3,168
Mar.	2,557	2,690	133	3,312	1,584	1,652	68	2,726
Apr.	2,460	2,554	94	2,729	1,595	1,643	48	2,492
May	2,474	2,610	136	2,538	1,509	1,579	70	2,305
Jun.	2,646	2,721	75	2,392	1,575	1,613	38	2,359
Jul.	2,689	2,783	94	2,343	1,480	1,528	48	2,339
Aug.	2,461	2,582	121	2,258	1,444	1,506	62	2,348
Sep.	2,686	2,726	40	2,627	1,495	1,516	21	2,380
Oct.	2,589	2,650	61	2,981	1,512	1,543	31	2,258
Nov.	2,703	2,823	120	3,069	1,579	1,641	62	2,513
Dec.	2,891	3,052	161	3,776	1,660	1,743	83	2,762
Average	2,661	2,764	103	2,969	1,580	1,634	54	2,562

LIBRARY U. OF I. URBANA-CHAMPAIGN

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Note 13: NGL Import/Export Algorithms

Beginning in January 1984, the Energy Information Administration (EIA) implemented changes in the reporting of natural gas liquid (NGL) supply data, moving from a nine-product slate to a five-component slate that corresponds to industry record-keeping practices. Changes could not be made to the import and export systems. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm is based on information gathered from the larger importers of NGL, who were asked to provide component analyses of the products they imported during the first six months of 1983. The percentages shown in Exhibit 1 are derived from the weighted averages of the data provided by the importers.

EXHIBIT 1. ALGORITHMS FOR ALLOCATING NGL IMPORTS

PRODUCT SLATE	*Ethane*	*Propane*	*Normal butane*	*Isobutane*	*Pentanes Plus*
Natural Gasoline & Isopentane (EIA-814)					100%
Plant Condensate (EIA-814)					100%
Ethane (IM-145)	100%				
Butane (IM-145)			60%	40%	
Butane-Propane Mixtures (IM-145)		40%	35%	20%	5%
Ethane-Propane Mixtures (IM-145)	80%	20%			

Exports

The export algorithm is based on information gathered from the larger exporters of NGL, who were asked to provide component analyses of the products they exported during 1983. The percentages shown in Exhibit 2 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by PAD of exportation, due to the wide variation of components in the mixed streams.

EXHIBIT 2. ALGORITHMS FOR ALLOCATING NGL EXPORTS

		EIA Component Slate				
PRODUCT	*P.A.D.*	*Ethane*	*Propane*	*Normal Butane*	*Isobutane*	*Pentanes Plus*
Ethane	All	100%				
Propane	All		100%			
Butane	All			100%		
Mixed Streams	I, IV, V		40%	60%		
	II	30%	25%	15%	15%	15%
	III		80%	20%		

☆ U.S. GOVERNMENT PRINTING OFFICE: 1984-421-766:114

LIBRARY U. OF I. URBANA-CHAMPAIGN

DOE F 1340.1
(2-80)

Energy Information Administration

GPO SUBSCRIPTION ORDER FORM

A

(For use in ordering EIA Publications only — Read Ordering Information Section before completing form.)

SEND ORDER FORM TO: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402

Enclosed is $ ____________ ☐ Check

☐ Money order, or charge to my Deposit Account No.

☐☐☐☐☐☐☐ – ☐

Order No. ____________

VISA®

MasterCard

Credit Card Orders Only

Total charges $ ____________ Fill in the boxes below

Credit Card No. ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Expiration Date Month/Year ☐☐☐☐ ☐ VISA ☐ Master Card

PLEASE PRINT OR TYPE

NAME AND ADDRESS

NAME – FIRST, LAST

COMPANY NAME OR ADDITIONAL ADDRESS LINE

STREET ADDRESS

CITY **STATE** **ZIP CODE**

(OR COUNTRY)

PRINT OR TYPE TITLES OF ITEMS YOU WISH TO RECEIVE ON A SUBSCRIPTION BASIS:

FOR OFFICE USE ONLY

QUANTITY	CHARGES
.... ENCLOSED	....
.... TO BE MAILED	....
.... SUBSCRIPTIONS	....
POSTAGE	....
FOREIGN HANDLING	....
MMOB	....
OPNR	....
.... UPNS	
.... DISCOUNT	
.... REFUND	

GPO [illegible]

LIBRARY U. OF I. URBANA-CHAMPAIGN

LIBRARY U. OF I. URBANA-CHAMPAIGN

Energy Information Administration
Forrestal Building
Washington, D.C. 20585

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

FIRST—CLASS MAIL
POSTAGE & FEES PAID
U.S. DEPT. OF ENERGY
PERMIT NO. G 20

FIRST CLASS MAIL

/EIA-0109 (84/05)

Doc.
E3.11/5:
984/5

etroleum
upply
onthly

ay 1984

blished:
ly 1984

Energy Information Administration
Washington, D.C.

ELECTRONIC AVAILABILITY OF DATA
See Page ii

IMPORTANT NOTICE
See Inside Cover

This publication is available from the Superintendent of Documents, U.S. Government Printing Office (GPO). Ordering information and purchase of this and other Energy Information Administration (EIA) publications may be obtained from the GPO or the EIA's National Energy Information Center (NEIC). Questions on energy statistics should be directed to the NEIC. Addresses and telephone numbers appear below. An order form is enclosed for your convenience.

National Energy Information Center, EI-20
Energy Information Administration
Forrestal Building
Room 1F-048
Washington, D.C. 20585
(202) 252-8800

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
(202) 783-3238

Released for printing: July 23, 1984

LIBRARY U. OF I. URBANA-CHAMPAIGN

IMPORTANT NOTICE

As required by Government regulation, the Energy Information Administration (EIA) is conducting its annual publications mailing list review. If you are on the EIA mailing list, you should have received an important postcard. You must return it to us to remain on the EIA mailing list. If you have not received the postcard, please contact the National Energy Information Center at 202-252-8800

Note: This notice does not apply to subscriptions which have been purchased from the Government Printing Office (GPO).

etroleum
upply
onthly

y 1984

lished:
1984

s report was prepared by the
ergy Information Administration,
independent statistical and
alytical agency within the De-
tment of Energy. The informa-
n contained herein should not
construed as advocating or
essarily reflecting any policy po-
on of the Department of Energy
any other organization.

BOOKSTACKS
DOCUMENTS

Energy Information Administration
Washington, D.C. 20585

BOOKSTACKS
DOCUMENTS

DOE/EIA-0109(84/05)
Dist. Category UC-98

DEPOSITORY
AUG 3 1984
UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Energy Information Administration
Electronic Publication System (EPUB)
User Instructions

Selected Weekly Petroleum Status Report (WPSR) and Petroleum Supply Monthly (PSM) statistics are now availabl electronically on the Energy Information Administration (EIA) Computer Facility. Public access to these machin readable statistics is possible by dialing (202) 252-4964 or (202) 252-4764 for 300 baud or 1200 baud line speeds. Communications are Asynchronous and require a standard ASCII-type terminal. There is no charge for this service. Although there is not a required password, you will be requested to use your telephone number as a user identifie This service is available from 8 a.m. to 11 p.m. weekdays and 10 a.m. to 6 p.m. on weekends and holidays (Washington, D.C. time). The weekly data will be updated with the current week's statistics by 5 p.m. on Wednesday of eac week (Thursday in the event of a holiday). Monthly data for the current available month will be updated by 5 p.m. o the 24th of each month. Questions or comments should be directed to T.C. Swann at (202) 252-1155.

Access Instructions:

1) DIAL (202) 252-4964 or (202) 252-4764

2) HIT RETURN (CARRIAGE RETURN) ONCE TO ESTABLISH BAUD RATE AND TYPE **LOGON** TO LINK TO EIADIAL FOLLOWED BY A SECOND RETURN

```
LOGON
***                                                            ***
***                  WELCOME TO THE                            ***
***         ENERGY INFORMATION ADMINISTRATION                  ***
***           ELECTRONIC PUBLICATION SYSTEM                    ***
***                                                            ***
```

3) SELECT THE STATISTICS YOU WISH FROM THE MENU

```
THE FOLLOWING REPORTS ARE AVAILABLE.
     WPSR—WEEKLY PETROLEUM STATUS REPORT
     PSMR—PETROLEUM SUPPLY MONTHLY
PLEASE ENTER THE DESIRED REPORT ID. . .
```

TYPE **WPSR** OR **PSMR**

4) ENTER YOUR 10 DIGIT PHONE NUMBER

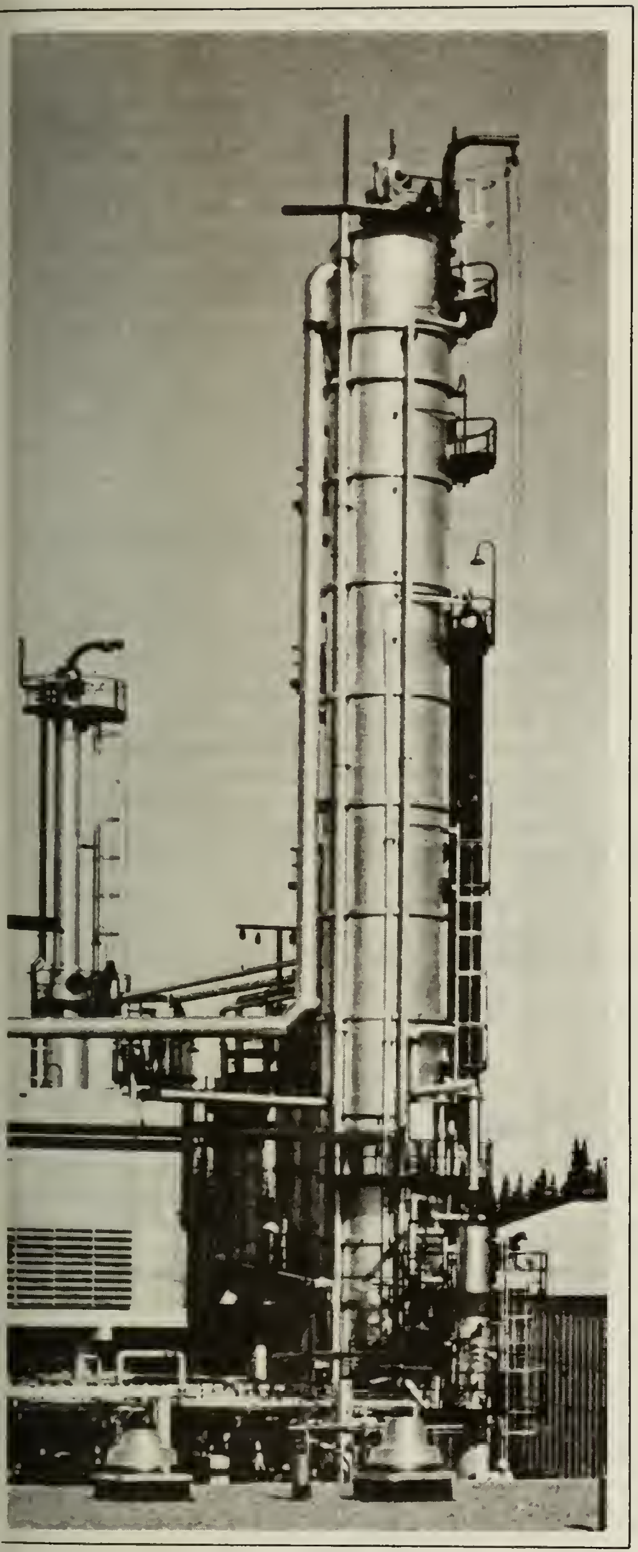
```
$WP1081 LOGON IN PROGRESS AT 13:23:22 ON MAY 9, 1984
PLEASE ENTER YOUR PHONE NUMBER. . .
```

5) YOU WILL THEN SEE A BANNER WHICH SHOWS THE REPORT YOU HAVE SELECTED AND PAUSES TO ALLOW AMPLE TIME TO GET READY TO RECEIVE OUTPUT

```
YOU HAVE SELECTED WEEKLY STATISTICS FROM THE WEEKLY PETROLEUM
REPORTING SYSTEM. THIS SYSTEM WILL DISPLAY THE LATEST U.S.
PETROLEUM BALANCE SHEET AND THE MOST RECENT 5 WEEKS OF WEEK-
LY PETROLEUM STATUS REPORT DATA. PLEASE TURN ON YOUR PRINTER
NOW IF YOU WISH TO OBTAIN HARD COPY OUTPUT.

              (PRINTING WILL BEGIN IN 20 SECONDS)
```

Contents



Page

Petroleum Focus

Petroleum Supply Summary ix

Summary Statistics—through June 1984

Crude Oil and Petroleum Products Overview. . 2
Crude Oil Supply and Disposition........... 6
Crude Oil and Petroleum Products Imports. . . 8
Finished Motor Gasoline Supply and Disposition. 11
Distillate Fuel Oil Supply and Disposition 13
Residual Fuel Oil Supply and Disposition 15
Liquefied Petroleum Gases Supply and Disposition. 17
Other Petroleum Products Supply and Disposition. 18
Sources 19

Detailed Statistics—May 1984

National Statistics

1. U.S. Petroleum Balance................ 23
2. Supply and Disposition of Crude Oil and Petroleum Products................... 24
3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products....... 25
4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products....... 26
5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products 27

Supply and Disposition of Crude Oil and Petroleum Products by PAD Districts

6. PAD District I........................ 28
7. PAD District II 29
8. PAD District III 30
9. PAD District IV 31
10. PAD District V....................... 32

Production of Crude Oil and Lease Condensate

11. Production by PAD District and State, March 1984.......................... 33

Natural Gas Processing

12. Plant Production of Petroleum Products by PAD Districts 34

Refinery Operations by PAD District

13. Refinery Input of Crude Oil and Petroleum Products....................... 35
14. Refinery Production of Petroleum Products 36
15. Percent Refinery Yield of Petroleum Products 37

Contents (Continued)

Page

Imports and Exports of Crude Oil and Petroleum Products

16. Imports by PAD District 38
17. Year-to-Date Imports by PAD District 39
18. Imports by Source and PAD District 40
19. Year-to-Date Imports by Source and PAD District 44
20. Exports by PAD District 49
21. Year-to-Date Exports by PAD District 50
22. Exports by Destination 51
23. Year-to-Date Exports by Destination 53

Stocks

24. Stocks of Crude Oil and Petroleum Products by PAD District 55
25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State 60

Transportation of Crude Oil and Petroleum Products Between PAD Districts

26. Movements by Pipeline, Tanker, and Barge 61
27. Movements by Pipeline 61
28. Movements by Tanker and Barge 62
29. Net Movements by Pipeline, Tanker, and Barge 63

Heavy Fuel Oils by Sulfur Content

30. Product of Residual Fuel Oil 64
31. Stocks of Residual Fuel Oil 64
32. Movements by Tanker and Barge 64
33. Imports of Residual Fuel Oil by Country of Origin 65
34. Imports of Residual Fuel Oil by State of Entry 66

Glossary

Definitions of Petroleum Products and Others Terms 69
Bureau of Mines Petroleum Refining Districts and PAD Districts 75

Maps

PAD Districts 76
Bureau of Mines Refinery Districts 76
District Map, Oil and Gas Division, Railroad Commission of Texas 77

Pa

Explanatory Notes

1. Data Collection Methodology
   1.1 Weekly Petroleum Supply Reporting System (WPSRS)
   1.2 Monthly Petroleum Supply Reporting System (MPSRS)
   1.3 Census Import (IM-145) and Export (EM-522 and EM-594) Data
2. Supply
3. Domestic Crude Oil Production
4. Disposition
5. Stocks
6. Average Stock Levels
7. Movements
8. Preliminary Monthly Statistics
9. Notes on Tables
10. New Stock Basis
11. Stocks of Alaskan Crude Oil
12. Changes in Petroleum Industry Reporting
13. NGL Import/Export Algorithm

Figures

Petroleum Overview
Petroleum Products Supplied
Crude Oil Supply and Disposition
Crude Oil Ending Stocks
Motor Gasoline Supply and Disposition
Motor Gasoline Ending Stocks
Distillate Fuel Oil Supply and Disposition
Distillate Fuel Oil Ending Stocks
Residual Fuel Oil Supply and Disposition
Residual Fuel Oil Ending Stocks
Liquefied Petroleum Gases Supply and Disposition
Liquefied Petroleum Gases Ending Stocks

Photo Credit

Standard Oil Company of California, page iii (Courtesy of American Petroleum Institute Photo Library).

Articles

Feature articles on energy-related subjects are frequently included in this publication. The following articles have appeared in previous issues of the *PSM*.

U.S. Petroleum Developments: 1981	Mar 1982
Timeliness and Accuracy of Selected Monthly Petroleum Supply Data	Apr 1982
Focus on Motor Gasoline Statistics	Apr 1982
Focus on Crude Oil Production Data	Apr 1982
Motor Gasoline Outlook: Summer 1982	May 1982
Gasoline Use in the United States	May 1982
The Impact of Changing Vehicle Characteristics and Use on Motor Gasoline Demand	May 1982
1982 EIA Petroleum Refinery Survey Results	Jun 1982
What is a Refinery?	Jun 1982
Mid-year Petroleum Supply Review	Jul 1982
Petroleum Imports and Exports	Aug 1982
Refinery Shutdowns During 1982	Sep 1982
Distillate Fuel Oil Outlook: Winter 1982-83	Sep 1982
Recent Trends in Fuel Oil	Sep 1982
Futures Trading on Heating Oil Markets	Sep 1982
U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1981 Annual Report	Oct 1982
Trends in Domestic Crude Oil Production and Reserves	Nov 1982
Major Energy Companies' Investment and Resource Development Patterns, 1974-80	Nov 1982
U.S. Petroleum Developments: 1982	Jan 1983
Trends in Petroleum Products Consumption, 1971-1982	Jan 1983
Refinery Shutdowns During 1982	Feb 1983
U.S. Petroleum Imports and Exports	Feb 1983
Petroleum Supply Reporting System Overview	Mar 1983
Summer Gasoline Overview	May 1983
Principal Factors Influencing Motor Gasoline Demand	May 1983
U.S. Petroleum Refinery Trends and Outlook	Jun 1983
Mid-Year Petroleum Review	Jul 1983
Timeliness and Accuracy of Selected Petroleum Supply Data Series	Aug 1983
Distillate Fuel Oil Overview: Winter 1983-84	Sep 1983
Fuel Oil Trends	Sep 1983
U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves	Sep 1983
LPG Market Trends	Nov 1983
National Petroleum Council Revises Minimum Operating Inventory Estimates	Dec(1) 1983
U.S. Petroleum Developments: 1983	Dec(2) 1983
An Overview of Petroleum Transportation	Dec(3) 1983
EIA Revises Petroleum Supply Reporting System	Jan 1984
Trends in Petroleum Product Consumption	Jan 1984
Petroleum Consumption in the Industrial Sector	Jan 1984
Motor Gasoline Outlook for Summer 1984	Feb 1984
Recent Motor Gasoline Trends	Feb 1984
New Patterns Emerging in U.S. Petroleum Imports and Exports	Feb 1984
Refinery Capacity Trends and Outlook	Apr 1984

LIBRARY U. OF I. URBANA-CHAMPAIGN

Petroleum Focus

LIBRARY U. OF I. URBANA-CHAMPAIGN

Petroleum Supply Summary

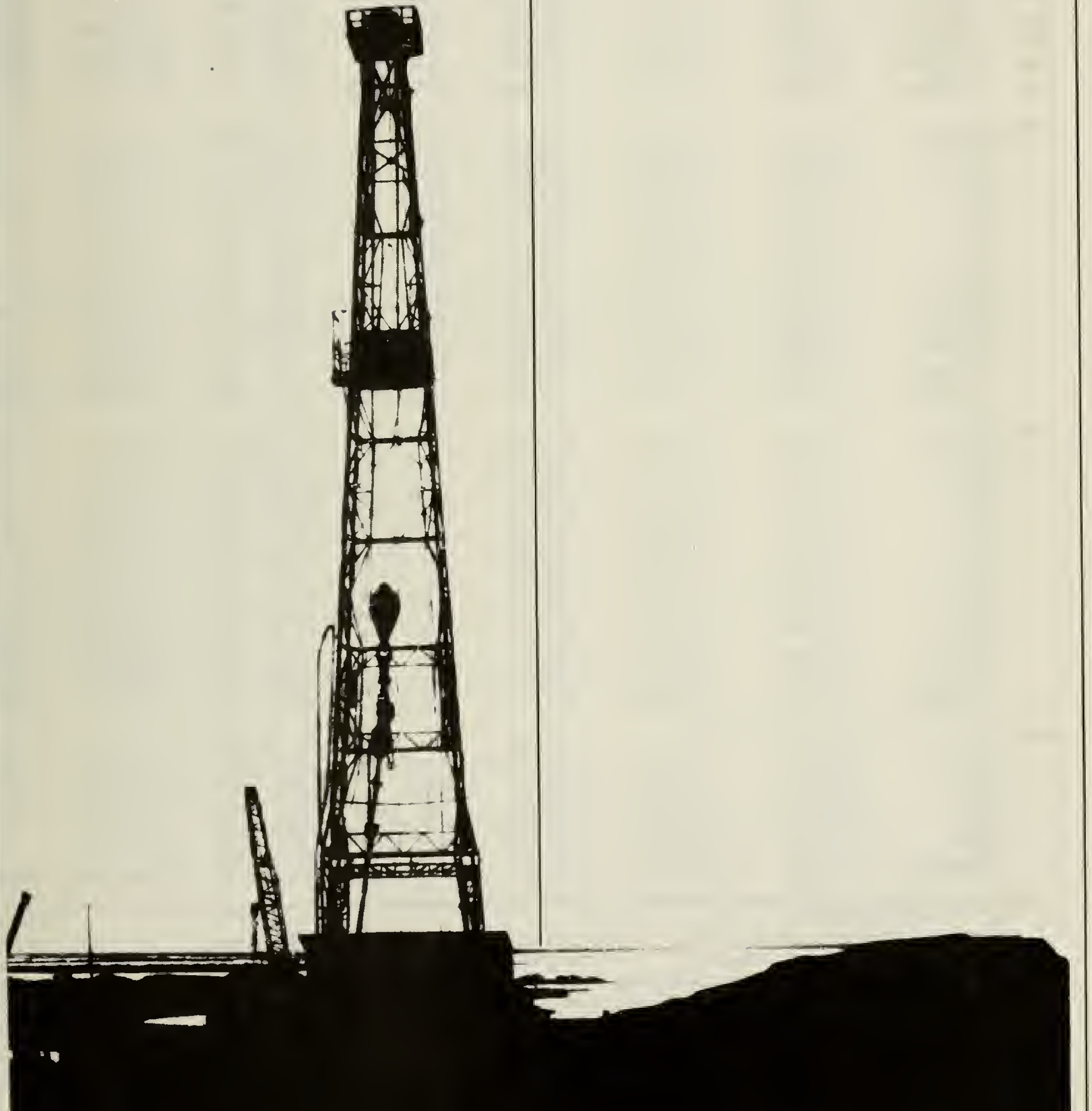
	June			Cumulative January Through June		
Average Volume for Period (Million Barrels Per Day)	**1984**	**1983**	**% Change**	**1984**	**1983**	**% Change**
Products Supplied						
Motor Gasoline	7.0	7.0	– 0.4	6.6	6.5	1.4
Distillate Fuel Oil	2.7	2.5	6.2	3.0	2.7	12.2
Residual Fuel Oil	1.3	1.3	– 3.5	1.5	1.5	3.0
Other Products	4.6	4.4	2.9	4.7	4.3	9.3
Total	15.5	15.3	1.4	15.8	14.9	5.8
Crude Inputs to Refineries	12.4	12.3	0.8	12.0	11.4	5.8
Production						
Crude Oil, Natural Gas Liquids, and Other[1]	10.4	10.3	1.4	10.4	10.3	0.7
Imports						
Crude Oil[2]	3.4	3.4	1.3	3.2	2.7	18.8
SPR	0.3	0.2	77.4	0.2	0.2	– 8.8
Products	1.7	1.7	– 0.1	2.1	1.6	31.8
Total	5.5	5.3	3.5	5.5	4.5	22.0
Exports						
Crude Oil	0.2	0.1	52.1	0.2	0.2	11.3
Products	0.5	0.6	– 13.0	0.5	0.7	– 25.0
Total	0.8	0.8	– 1.0	0.7	0.8	– 17.4
Stock Withdrawal						
Crude Oil[2]	0.2	0.1	—	– 0.1	(s)	—
Products	– 0.4	– 0.3	—	– 0.1	0.5	—
Stocks at End of Period (Million Barrels)						
Crude Oil						
SPR	413	332	24.2			
Other	356	351	1.5			
Total	769	683	12.6			
Products						
Motor Gasoline[3]	249	223	12.0			
Distillate Fuel Oil	114	114	0.2			
Residual Fuel Oil	44	50	– 11.0			
Other	325	336	– 3.2			
Total	733	722	1.5			
Total Crude Oil and Products	1,502	1,405	6.9			

---

1 Includes alcohol and other hydrocarbon liquids.
2 Excludes Strategic Petroleum Reserve (SPR).
3 Including blending components.
(s) = Less than 0.05 million barrels per day.
NOTE: Percent changes are based on unrounded values. June 1984 data are estimates based on weekly data, except for exports, NGL production, other hydrocarbons, and alcohol which are May 1984 monthly values. Totals may not be equal to sum of components due to independent rounding.
Source: Energy Information Administration, *Petroleum Supply Monthly*, May 1984.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Summary Statistics



Crude Oil[1] and Petroleum Products Overview

		Field Production			Stock Withdrawal[2]			Ending Stocks[3]
		Total Domestic[4]	Crude Oil	Natural Gas Plant Production	Crude Oil[5]	Petroleum Products	Petroleum Products Supplied	Crude Oil[5] and Petroleum Products
		Thousand Barrels per Day						Million Barrels
1973	**AVERAGE**	**10,975**	**9,208**	**1,738**	**11**	**-146**	**17,308**	**1,008**
1974	**AVERAGE**	**10,498**	**8,774**	**1,688**	**-62**	**-117**	**16,653**	[8] **1,074**
1975	**AVERAGE**	**10,045**	**8,375**	**1,633**	[8] **-17**	[8] **-145**	**16,322**	**1,133**
1976	**AVERAGE**	**9,774**	**8,132**	**1,603**	**-39**	**96**	**17,461**	**1,112**
1977	**AVERAGE**	**9,913**	**8,245**	**1,618**	**-170**	**-378**	**18,431**	**1,312**
1978	**AVERAGE**	**10,328**	**8,707**	**1,567**	**-78**	**172**	**18,847**	**1,278**
1979	**AVERAGE**	**10,179**	**8,552**	**1,584**	**-148**	**-25**	**18,513**	**1,341**
1980	**AVERAGE**	**10,214**	**8,597**	**1,573**	**-98**	**-42**	**17,056**	[8] **1,392**
1981	**AVERAGE**	**10,230**	**8,572**	**1,609**	[8] **-290**	[8] **130**	**16,058**	**1,484**
1982	January	10,128	8,509	1,578	-401	1,298	16,124	1,456
	February	10,312	8,702	1,563	-242	1,230	16,001	1,428
	March	10,284	8,667	1,572	121	1,047	15,560	1,392
	April	10,188	8,591	1,542	-37	1,583	16,046	1,346
	May	10,244	8,683	1,518	29	-66	14,847	1,347
	June	10,212	8,646	1,511	40	-489	14,998	1,360
	July	10,229	8,658	1,513	-147	-926	14,821	1,393
	August	10,215	8,634	1,524	-440	-44	14,839	1,408
	September	10,279	8,701	1,518	263	-447	15,022	1,414
	October	10,299	8,701	1,530	-548	-47	14,859	1,432
	November	10,359	8,697	1,609	-398	-361	15,009	1,455
	December	10,276	8,598	1,628	128	688	15,487	[8] 1,430
	AVERAGE	**10,252**	**8,649**	**1,550**	**-136**	**283**	**15,296**	
1983	January	10,331	8,697	1,580	[8] -499	[8] 772	14,722	1,452
	February	10,388	8,758	1,575	-320	1,113	14,792	1,430
	March	10,279	8,700	1,541	83	1,810	15,541	1,372
	April	10,322	8,776	1,506	-402	308	14,692	1,374
	May	10,190	8,631	1,493	-15	-602	14,505	1,394
	June	10,261	8,667	1,523	-122	-276	15,289	1,405
	July	10,228	8,636	1,539	233	-909	15,019	1,426
	August	10,284	8,679	1,562	-796	-271	15,480	1,460
	September	10,447	8,784	1,602	-239	-621	15,506	1,485
	October	10,434	8,771	1,604	-274	-442	14,962	1,508
	November	10,461	8,770	1,641	114	-182	15,500	1,510
	December	9,983	8,397	1,544	-329	2,133	16,726	1,454
	AVERAGE	**10,299**	**8,688**	**1,559**	**-214**	**234**	**15,231**	
1984	January	10,282	8,659	1,585	-342	1,085	16,726	1,430
	February	10,410	8,726	1,629	186	-1,353	15,389	1,464
	March	10,354	8,718	1,588	-2	643	16,017	1,444
	April	10,347	8,688	1,616	-565	-128	15,484	1,465
	May*	10,415	R 8,752	1,610	R -616	R -422	R 15,566	R 1,497
	June**	NA	8,743	NA	*-159*	*-390*	*15,504*	*1,502*
	AVERAGE	**NA**	**8,714**	**NA**	**-253**	**-79**	**15,788**	

---

[1] Includes lease condensate.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] Stocks are totals as of end of period.

[4] Includes crude oil, natural gas plant production, other hydrocarbons, and alcohol.

[5] Includes stocks located in the Strategic Petroleum Reserve.

[6] Includes crude oil for storage in the Strategic Petroleum Reserve.

[7] Net Imports equal Imports minus Exports.

[8] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

Footnotes continued on following page.

Crude Oil[1] and Petroleum Products Overview (continued)

	Imports			Exports			
	Total	Crude Oil[6]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net[7] Imports
	Thousand Barrels per Day						
1973 AVERAGE	**6,256**	**3,244**	**3,012**	**231**	**2**	**229**	**6,025**
1974 AVERAGE	**6,112**	**3,477**	**2,635**	**221**	**3**	**218**	**5,892**
1975 AVERAGE	**6,056**	**4,105**	**1,951**	**209**	**6**	**204**	**5,846**
1976 AVERAGE	**7,313**	**5,287**	**2,026**	**223**	**8**	**215**	**7,090**
1977 AVERAGE	**8,807**	**6,615**	**2,193**	**243**	**50**	**193**	**8,565**
1978 AVERAGE	**8,363**	**6,356**	**2,008**	**362**	**158**	**204**	**8,002**
1979 AVERAGE	**8,456**	**6,519**	**1,937**	**472**	**235**	**237**	**7,984**
1980 AVERAGE	**6,909**	**5,263**	**1,646**	**544**	**287**	**258**	**6,365**
1981 AVERAGE	**5,996**	**4,396**	**1,599**	**595**	**228**	**367**	**5,401**
1982 January	5,332	3,693	1,639	829	238	591	4,503
February	4,807	2,990	1,817	804	304	499	4,003
March	4,484	2,874	1,610	882	321	561	3,602
April	4,378	2,849	1,529	786	174	611	3,593
May	4,811	3,309	1,503	803	262	542	4,008
June	5,327	3,836	1,491	703	94	609	4,624
July	5,890	4,248	1,642	741	229	512	5,149
August	5,244	3,851	1,392	858	304	554	4,386
September	5,414	3,636	1,778	791	184	606	4,624
October	5,306	3,670	1,636	932	270	662	4,374
November	5,744	3,862	1,882	786	262	524	4,958
December	4,606	3,000	1,605	860	193	667	3,746
AVERAGE	**5,113**	**3,488**	**1,625**	**815**	**236**	**579**	**4,298**
1983 January	4,438	2,964	1,474	973	117	856	3,464
February	3,726	2,267	1,459	865	262	603	2,861
March	3,690	2,290	1,400	801	174	627	2,889
April	4,727	3,118	1,609	809	88	721	3,918
May	5,089	3,360	1,729	848	280	568	4,241
June	5,326	3,577	1,749	774	144	630	4,552
July	5,741	3,871	1,870	571	145	426	5,170
August	6,159	4,227	1,933	663	172	491	5,496
September	6,129	4,210	1,919	684	177	507	5,445
October	5,258	3,446	1,812	576	140	436	4,682
November	5,210	3,337	1,873	679	186	494	4,531
December	5,033	3,213	1,820	639	95	544	4,394
AVERAGE	**5,051**	**3,329**	**1,722**	**739**	**164**	**575**	**4,312**
1984 January	5,347	3,029	2,318	575	153	422	4,772
February	5,643	2,952	2,691	582	185	397	5,061
March	5,253	3,455	1,798	840	236	605	4,413
April	5,319	3,417	1,902	655	172	483	4,664
May*	R 5,916	R 3,927	R 1,989	766	219	548	5,150
June**	*5,513*	*3,766*	*1,747*	NA	NA	NA	NA
AVERAGE	**5,498**	**3,428**	**2,070**	**NA**	**NA**	**NA**	**NA**

Footnotes continued.

* See Explanatory Note 9.1.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available.

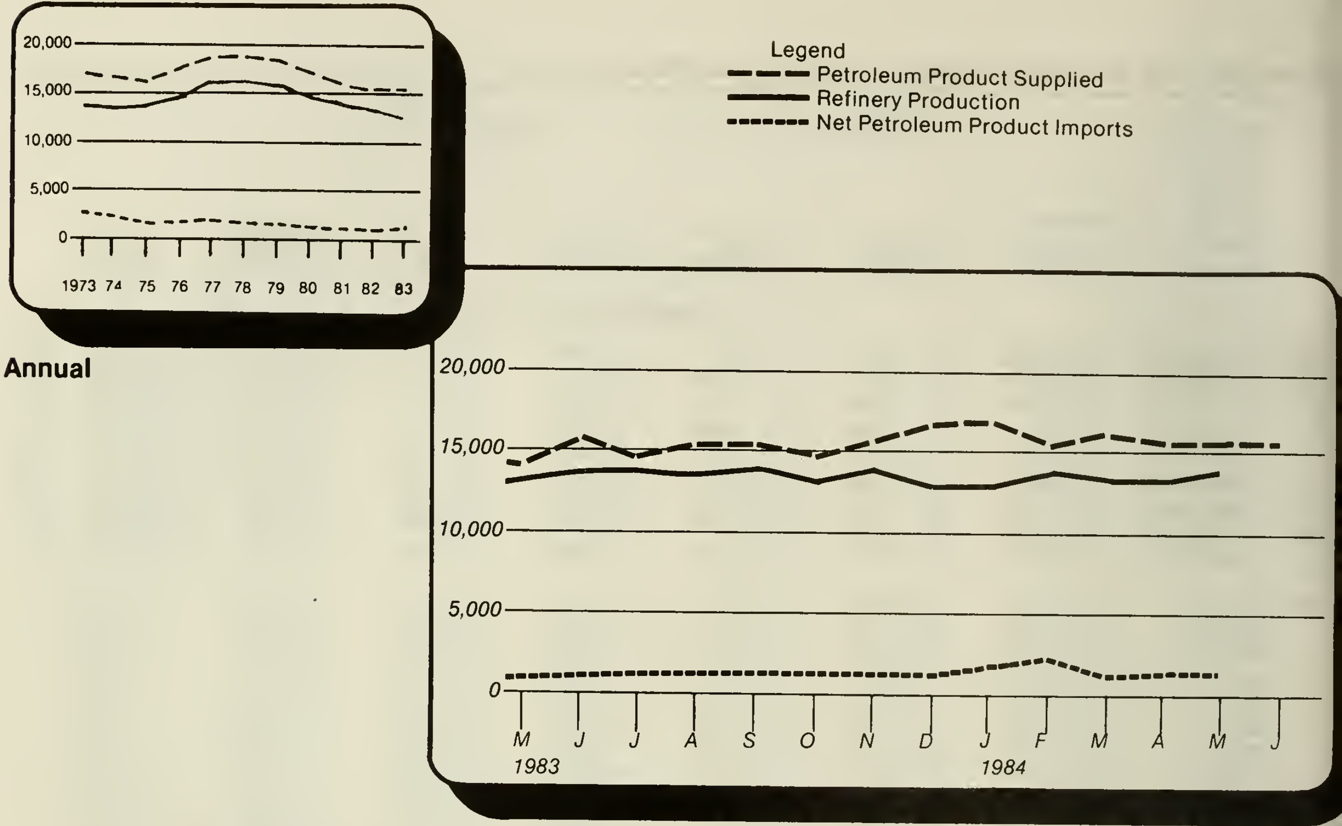
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Petroleum Overview

(Thousand Barrels Per Day)

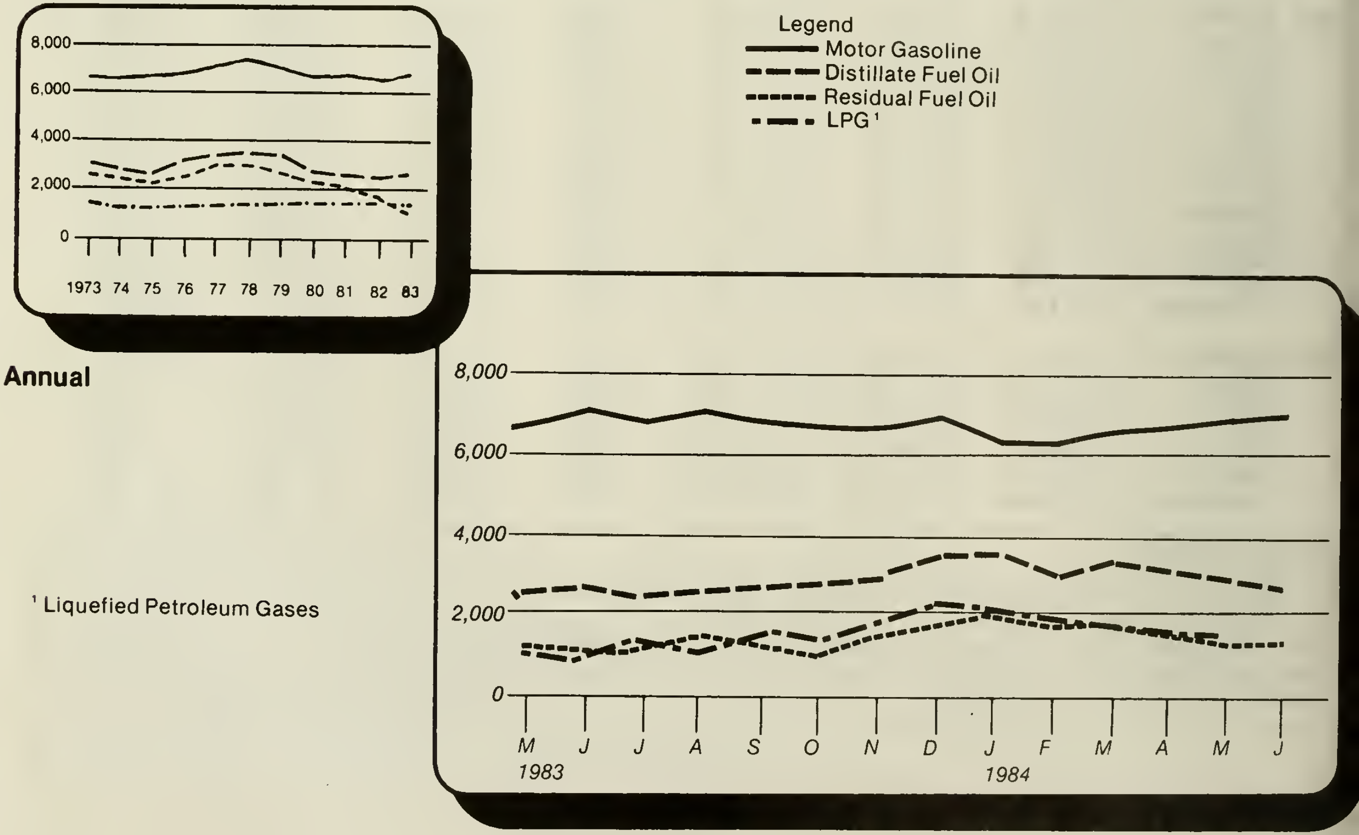


Annual

Monthl

Petroleum Products Supplied

(Thousand Barrels Per Day)



Annual

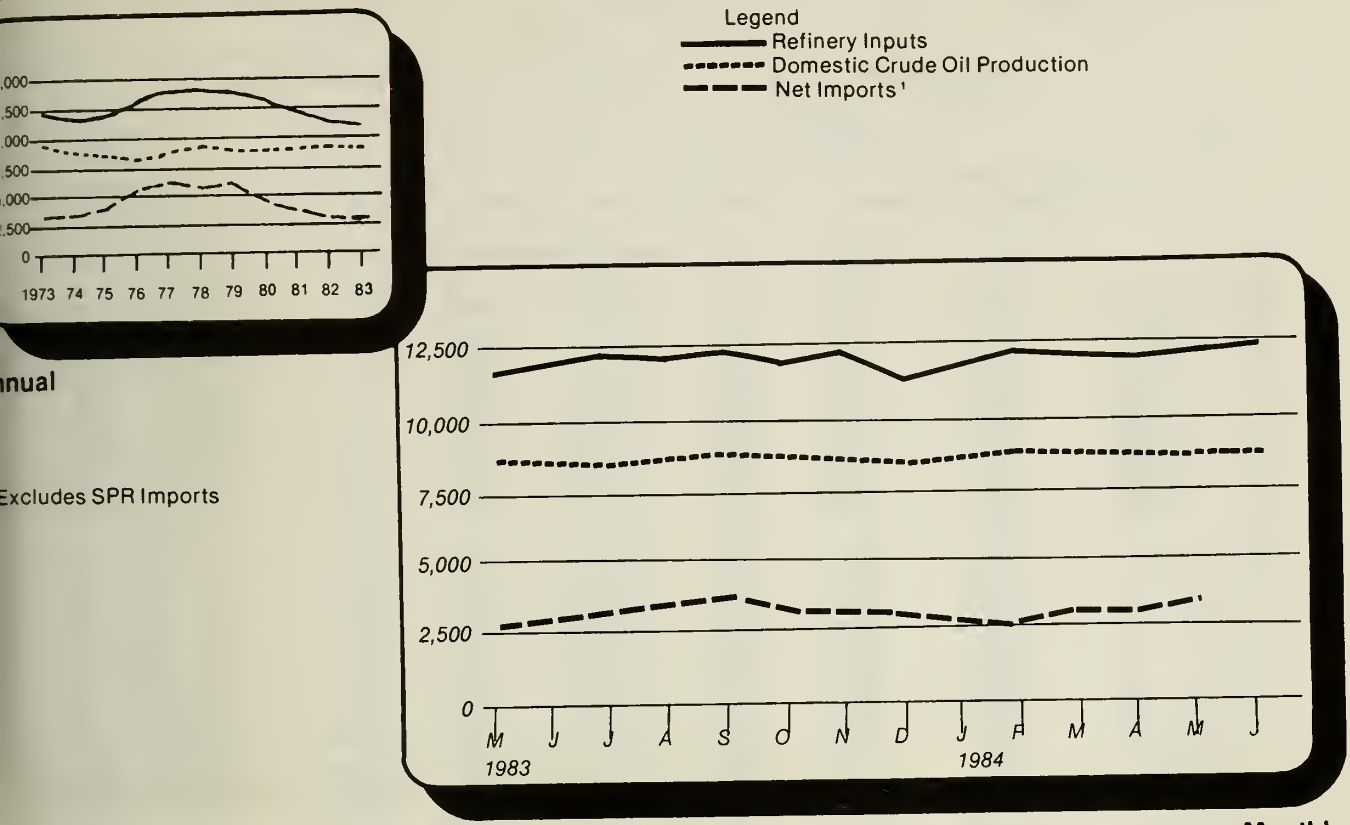
Monthl

[1] Liquefied Petroleum Gases

LIBRARY U. OF I. URBANA-CHAMPAIGN

rude Oil Supply and Disposition

housand Barrels Per Day)



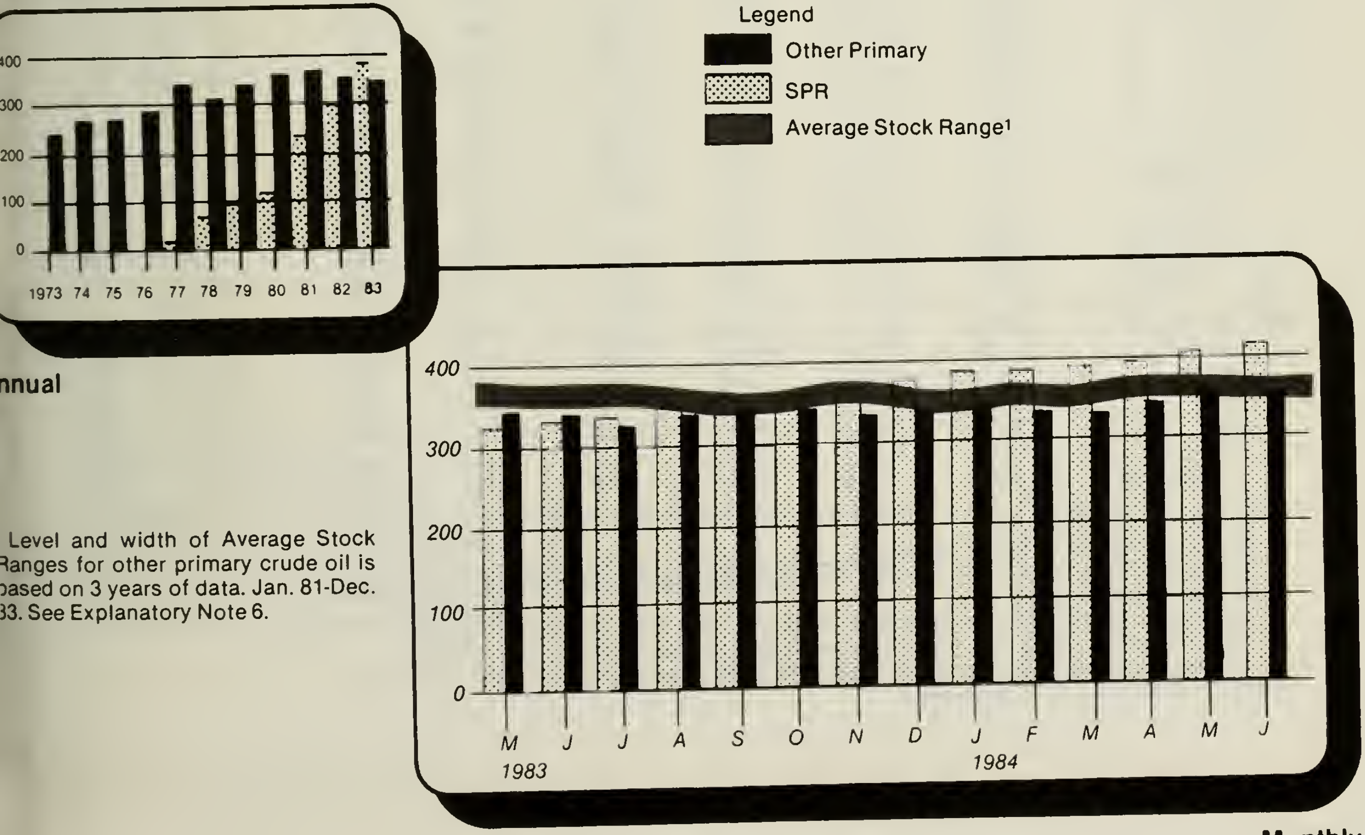
nnual

Monthly

Excludes SPR Imports

Crude Oil Ending Stocks

Million Barrels)



nnual

Monthly

Level and width of Average Stock Ranges for other primary crude oil is based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Crude Oil[1] Supply and Disposition

	Supply							
	Field Production		Imports			Stock Withdrawal[3]		
	Total Domestic	Alaskan	Total	SPR[4]	Other	SPR[4]	Other	Unaccounted for Crude Oil
	Thousand Barrels per Day							
1973 AVERAGE	**9,208**	**198**	**3,244**		**3,244**		**11**	**3**
1974 AVERAGE	**8,774**	**193**	**3,477**		**3,477**		**-62**	**-25**
1975 AVERAGE	**8,375**	**191**	**4,105**		**4,105**		**-17**	**17**
1976 AVERAGE	**8,132**	**173**	**5,287**		**5,287**		**-39**	**77**
1977 AVERAGE	**8,245**	**464**	**6,615**	**21**	**6,594**	**-20**	**-150**	**-6**
1978 AVERAGE	**8,707**	**1,229**	**6,356**	**162**	**6,195**	**-163**	**84**	**-57**
1979 AVERAGE	**8,552**	**1,401**	**6,519**	**67**	**6,452**	**-67**	**-81**	**-11**
1980 AVERAGE	**8,597**	**1,617**	**5,263**	**44**	**5,219**	**-45**	**-52**	**34**
1981 AVERAGE	**8,572**	**1,609**	**4,396**	**256**	**4,141**	**-336**	[6] **46**	**83**
1982 January	8,509	1,705	3,693	170	3,523	-159	-242	101
February	8,702	1,707	2,990	159	2,830	-213	-29	156
March	8,667	1,696	2,874	185	2,689	-235	357	2
April	8,591	1,691	2,849	190	2,659	-233	196	231
May	8,683	1,707	3,309	204	3,105	-176	205	111
June	8,646	1,665	3,836	105	3,732	-105	144	133
July	8,658	1,710	4,248	97	4,150	-97	-50	-20
August	8,634	1,697	3,851	208	3,643	-208	-232	189
September	8,701	1,705	3,636	139	3,497	-143	406	-210
October	8,701	1,706	3,670	216	3,454	-216	-332	249
November	8,697	1,676	3,862	180	3,683	-179	-219	-124
December	8,598	1,682	3,000	124	2,877	-125	252	35
AVERAGE	**8,649**	**1,696**	**3,488**	**165**	**3,323**	**-174**	**38**	**71**
1983 January	8,697	1,732	2,964	219	2,746	-219	[6] -280	170
February	8,758	1,717	2,267	197	2,070	-197	-123	262
March	8,700	1,732	2,290	201	2,089	-184	267	31
April	8,776	1,721	3,118	205	2,913	-197	-205	98
May	8,631	1,662	3,360	289	3,071	-293	278	169
June	8,667	1,687	3,577	190	3,387	-188	66	370
July	8,636	1,715	3,871	274	3,597	-264	497	-167
August	8,679	1,697	4,227	350	3,876	-358	-438	281
September	8,784	1,738	4,210	309	3,901	-307	68	-30
October	8,771	1,733	3,446	202	3,244	-201	-73	44
November	8,770	1,720	3,337	171	3,166	-135	250	34
December	8,397	1,711	3,213	193	3,020	-252	-78	117
AVERAGE	**8,688**	**1,714**	**3,329**	**234**	**3,096**	**-234**	**20**	**114**
1984 January	8,659	1,741	3,029	200	2,829	-173	-169	451
February	8,726	1,740	2,952	85	2,868	-96	282	487
March	8,718	1,740	3,455	148	3,307	-147	145	66
April	8,688	1,725	3,417	170	3,247	-170	-396	590
May*	R 8,752	1,793	R 3,927	R 246	R 3,681	R -245	R -371	463
June**	8,743	1,792	*3,766*	*337*	*3,430*	*-337*	*177*	NA
AVERAGE	**8,714**	**1,755**	**3,428**	**198**	**3,230**	**-195**	**-58**	**NA**

---

[1] Includes lease condensate.
[2] Stocks are totals as of end of period.
[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[4] Strategic Petroleum Reserve.
[5] Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.
[6] Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels. See Explanatory Notes 10 and 11.

Footnotes continued on following page.

Crude Oil[1] Supply and Disposition (continued)

	Supply	Disposition				Ending Stocks[2]		
	Crude Used Directly[5]	Crude Losses	Refinery Inputs	Exports	Products Supplied[5]	Total Crude Oil	SPR[4]	Other Primary
	Thousand Barrels per Day					Million Barrels		
1973 AVERAGE	**-19**	**13**	**12,431**	**2**	**NA**	**242**		**242**
1974 AVERAGE	**-15**	**13**	**12,133**	**3**	**NA**	**265**		**265**
1975 AVERAGE	**-17**	**13**	**12,442**	**6**	**NA**	**271**		**271**
1976 AVERAGE	**-18**	**15**	**13,416**	**8**	**NA**	**285**		**285**
1977 AVERAGE	**-14**	**16**	**14,602**	**50**	**NA**	**348**	**7**	**340**
1978 AVERAGE	**-14**	**16**	**14,739**	**158**	**NA**	**376**	**67**	**309**
1979 AVERAGE	**-13**	**16**	**14,648**	**235**	**NA**	**430**	**91**	**339**
1980 AVERAGE	**-13**	**15**	**13,481**	**287**	**NA**	[6] **466**	**108**	[6] **358**
1981 AVERAGE	**-58**	**5**	**12,470**	**228**	**NA**	**594**	**230**	**363**
1982 January	-63	3	11,599	238	NA	606	235	371
February	-64	2	11,236	304	NA	613	241	372
March	-63	5	11,276	321	NA	609	249	361
April	-65	3	11,392	174	NA	610	256	355
May	-62	3	11,806	262	NA	609	261	348
June	-60	7	12,494	94	NA	608	264	344
July	-60	3	12,446	229	NA	613	267	346
August	-57	2	11,871	304	NA	626	274	353
September	-56	4	12,146	184	NA	619	278	341
October	-51	2	11,749	270	NA	636	285	351
November	-51	1	11,724	262	NA	648	290	358
December	-53	1	11,514	193	NA	[6] 644	294	[6] 350
AVERAGE	**-59**	**3**	**11,774**	**236**	**NA**			
1983 January	NA	2	11,143	117	71	660	301	360
February	NA	3	10,633	262	71	669	306	363
March	NA	2	10,859	174	70	667	312	355
April	NA	2	11,433	88	68	679	318	361
May	NA	1	11,800	280	63	679	327	353
June	NA	(S)	12,284	144	64	683	332	351
July	NA	2	12,360	145	65	676	341	335
August	NA	1	12,152	172	64	700	352	349
September	NA	1	12,482	177	66	708	361	347
October	NA	1	11,782	140	63	716	367	349
November	NA	2	12,004	186	64	713	371	341
December	NA	1	11,234	95	67	723	379	344
AVERAGE	**NA**	**2**	**11,685**	**164**	**66**			
1984 January	NA	1	11,579	153	64	733	384	348
February	NA	1	12,100	185	65	727	387	340
March	NA	2	11,936	236	62	728	392	336
April	NA	(S)	11,893	172	64	744	397	348
May*	NA	2	R 12,243	219	62	764	R 404	R 359
June**	NA	NA	*12,388*	NA	NA	*769*	*413*	*356*
AVERAGE	**NA**	**NA**	**12,021**	**NA**	**NA**			

Footnotes continued.

(S) = Less than 500 barrels per day.

* See Explanatory Note 9.2.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available.

Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Crude Oil and Petroleum Product Imports

	Imports from OPEC Sources[1]										
	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC[2]	Total OPEC	Total Arab OPEC[3]
	Thousand Barrels per Day										
1973 AVERAGE	**136**	**164**	**486**	**71**	**213**	**223**	**459**	**1,135**	**106**	**2,993**	**915**
1974 AVERAGE	**190**	**4**	**461**	**74**	**300**	**469**	**713**	**979**	**88**	**3,280**	**752**
1975 AVERAGE	**282**	**232**	**715**	**117**	**390**	**280**	**762**	**702**	**122**	**3,601**	**1,383**
1976 AVERAGE	**432**	**453**	**1,230**	**254**	**539**	**298**	**1,025**	**700**	**134**	**5,066**	**2,424**
1977 AVERAGE	**559**	**723**	**1,380**	**335**	**541**	**535**	**1,143**	**690**	**287**	**6,193**	**3,185**
1978 AVERAGE	**649**	**654**	**1,144**	**385**	**573**	**555**	**919**	**645**	**226**	**5,751**	**2,963**
1979 AVERAGE	**636**	**658**	**1,356**	**281**	**420**	**304**	**1,080**	**690**	**212**	**5,637**	**3,056**
1980 AVERAGE	**488**	**554**	**1,261**	**172**	**348**	**9**	**857**	**481**	**130**	**4,300**	**2,551**
1981 AVERAGE	**311**	**319**	**1,129**	**81**	**366**	**0**	**620**	**406**	**90**	**3,323**	**1,848**
1982 January	254	161	877	111	289	0	663	376	128	2,859	1,403
February	139	92	693	89	244	0	584	355	102	2,297	1,054
March	91	37	555	155	200	0	522	399	91	2,051	860
April	85	0	511	122	215	0	427	426	85	1,871	740
May	179	0	601	116	236	0	222	422	54	1,830	897
June	115	0	593	94	215	72	537	361	110	2,096	820
July	159	0	660	108	327	69	910	356	95	2,685	965
August	181	0	489	133	271	27	574	299	133	2,107	818
September	179	0	432	57	191	21	477	518	69	1,943	677
October	249	7	494	61	242	108	313	504	106	2,084	810
November	247	14	489	47	283	34	479	528	115	2,235	797
December	155	0	237	12	265	88	462	399	73	1,690	421
AVERAGE	**170**	**26**	**552**	**92**	**248**	**35**	**514**	**412**	**97**	**2,146**	**854**
1983 January	207	0	282	47	255	43	186	337	54	1,412	537
February	115	0	214	9	217	0	92	393	28	1,068	338
March	63	0	103	0	138	0	121	440	201	1,066	183
April	227	0	162	(s)	210	0	186	523	125	1,432	389
May	286	0	122	12	405	37	385	455	69	1,771	420
June	300	0	188	40	466	38	467	335	138	1,973	528
July	283	0	182	64	464	112	525	434	187	2,251	606
August	378	0	448	52	433	213	464	511	230	2,728	903
September	423	0	587	21	501	86	324	432	221	2,595	1,084
October	261	0	638	16	368	12	307	337	169	2,108	938
November	184	0	545	56	302	21	215	452	135	1,910	807
December	144	0	569	45	294	9	329	415	163	1,969	826
AVERAGE	**240**	**0**	**337**	**30**	**338**	**48**	**302**	**422**	**144**	**1,862**	**632**
1984 January	242	0	463	114	278	0	243	547	51	1,939	828
February	348	0	324	33	267	0	244	481	174	1,871	723
March	283	0	307	112	284	67	260	354	127	1,792	717
April	280	0	320	95	221	0	288	581	158	1,944	734
May	456	0	329	240	480	0	289	621	242	2,657	1,131
AVERAGE	**322**	**0**	**349**	**120**	**307**	**14**	**265**	**517**	**150**	**2,044**	**829**

---

[1] Excludes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

[2] Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

[3] Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

Footnotes continued on following page.

Crude Oil and Petroleum Product Imports (continued)

	Imports from Non-OPEC Sources [4]										
	Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non OPEC	Total Non OPEC	Total Imports
	Thousand Barrels per Day										
1973 AVERAGE	**174**	**1,325**	**16**	**585**	**255**	**15**	**99**	**329**	**465**	**3,263**	**6,256**
1974 AVERAGE	**164**	**1,070**	**8**	**511**	**251**	**8**	**90**	**391**	**340**	**2,832**	**6,112**
1975 AVERAGE	**152**	**846**	**71**	**332**	**242**	**14**	**90**	**406**	**300**	**2,454**	**6,056**
1976 AVERAGE	**118**	**599**	**87**	**275**	**274**	**31**	**88**	**422**	**353**	**2,247**	**7,313**
1977 AVERAGE	**171**	**517**	**179**	**211**	**289**	**126**	**105**	**466**	**550**	**2,614**	**8,807**
1978 AVERAGE	**160**	**467**	**318**	**229**	**253**	**180**	**94**	**429**	**484**	**2,613**	**8,363**
1979 AVERAGE	**147**	**538**	**439**	**231**	**190**	**202**	**92**	**431**	**548**	**2,819**	**8,456**
1980 AVERAGE	**78**	**455**	**533**	**225**	**176**	**176**	**88**	**388**	**491**	**2,609**	**6,909**
1981 AVERAGE	**74**	**447**	**522**	**197**	**133**	**375**	**62**	**327**	**534**	**2,672**	**5,996**
1982 January	58	513	425	179	106	346	62	334	452	2,474	5,332
February	67	537	476	221	120	181	38	362	508	2,510	4,807
March	43	437	503	189	118	294	62	307	480	2,433	4,484
April	82	360	476	184	166	247	36	266	690	2,507	4,378
May	77	419	766	152	95	516	47	302	607	2,981	4,811
June	32	481	797	148	129	557	58	322	708	3,231	5,327
July	64	536	783	158	118	433	38	376	698	3,204	5,890
August	80	443	853	145	106	520	24	317	650	3,137	5,244
September	92	493	897	195	89	631	51	278	746	3,472	5,414
October	45	459	682	148	109	666	52	262	801	3,222	5,306
November	51	553	860	212	90	623	81	334	706	3,508	5,744
December	88	561	689	174	102	438	48	336	480	2,916	4,606
AVERAGE	**65**	**482**	**685**	**175**	**112**	**456**	**50**	**316**	**627**	**2,968**	**5,113**
1983 January	68	534	849	228	73	314	40	299	621	3,026	4,438
February	92	586	722	183	81	193	50	192	558	2,658	3,726
March	86	488	775	187	78	240	43	162	565	2,624	3,690
April	174	454	981	216	85	421	20	183	759	3,295	4,727
May	135	518	944	153	108	484	42	235	699	3,318	5,089
June	137	586	830	173	120	440	48	262	757	3,353	5,326
July	69	634	849	198	107	369	37	364	864	3,490	5,741
August	144	542	906	197	90	461	40	313	738	3,431	6,159
September	148	533	849	261	82	475	33	307	845	3,534	6,129
October	171	532	771	172	106	414	48	357	580	3,151	5,258
November	148	556	726	144	110	334	55	427	801	3,300	5,210
December	127	604	710	153	113	429	22	278	628	3,063	5,033
AVERAGE	**125**	**547**	**826**	**189**	**96**	**382**	**40**	**282**	**701**	**3,189**	**5,051**
1984 January	152	624	705	277	54	382	53	390	772	3,408	5,347
February	142	620	747	288	77	338	58	418	1,083	3,772	5,643
March	88	726	707	169	93	400	34	247	996	3,460	5,253
April	88	691	859	207	91	282	37	257	863	3,375	5,319
May	31	715	675	192	57	418	38	336	796	3,259	5,916
AVERAGE	**100**	**676**	**738**	**226**	**74**	**365**	**44**	**329**	**900**	**3,451**	**5,495**

Footnotes continued.

[4] Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

(s) = Less than 500 barrels per day.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

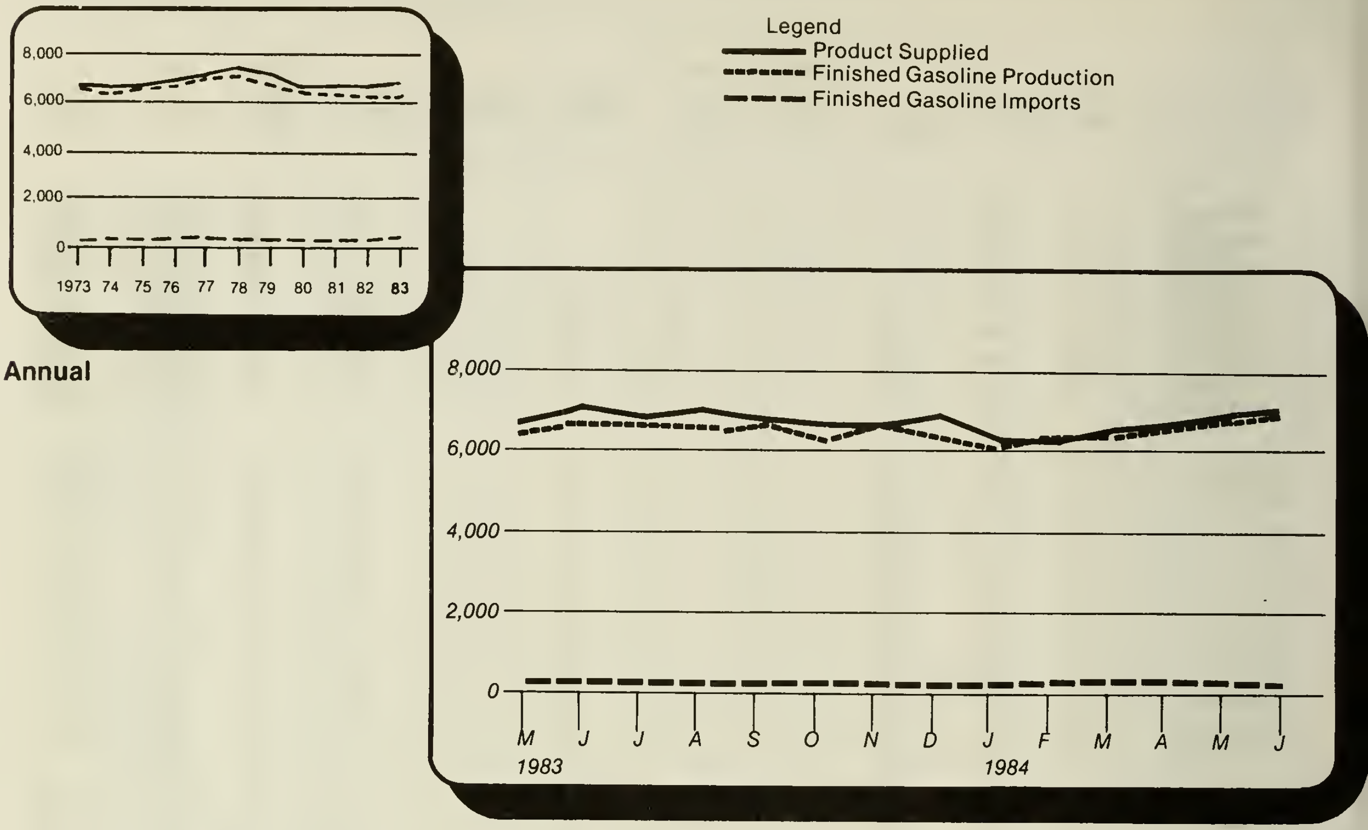
Total may not equal sum of components due to independent rounding.

Geographic coverage: The 50 United States and the District of Columbia.

Source: See the last page of this section.

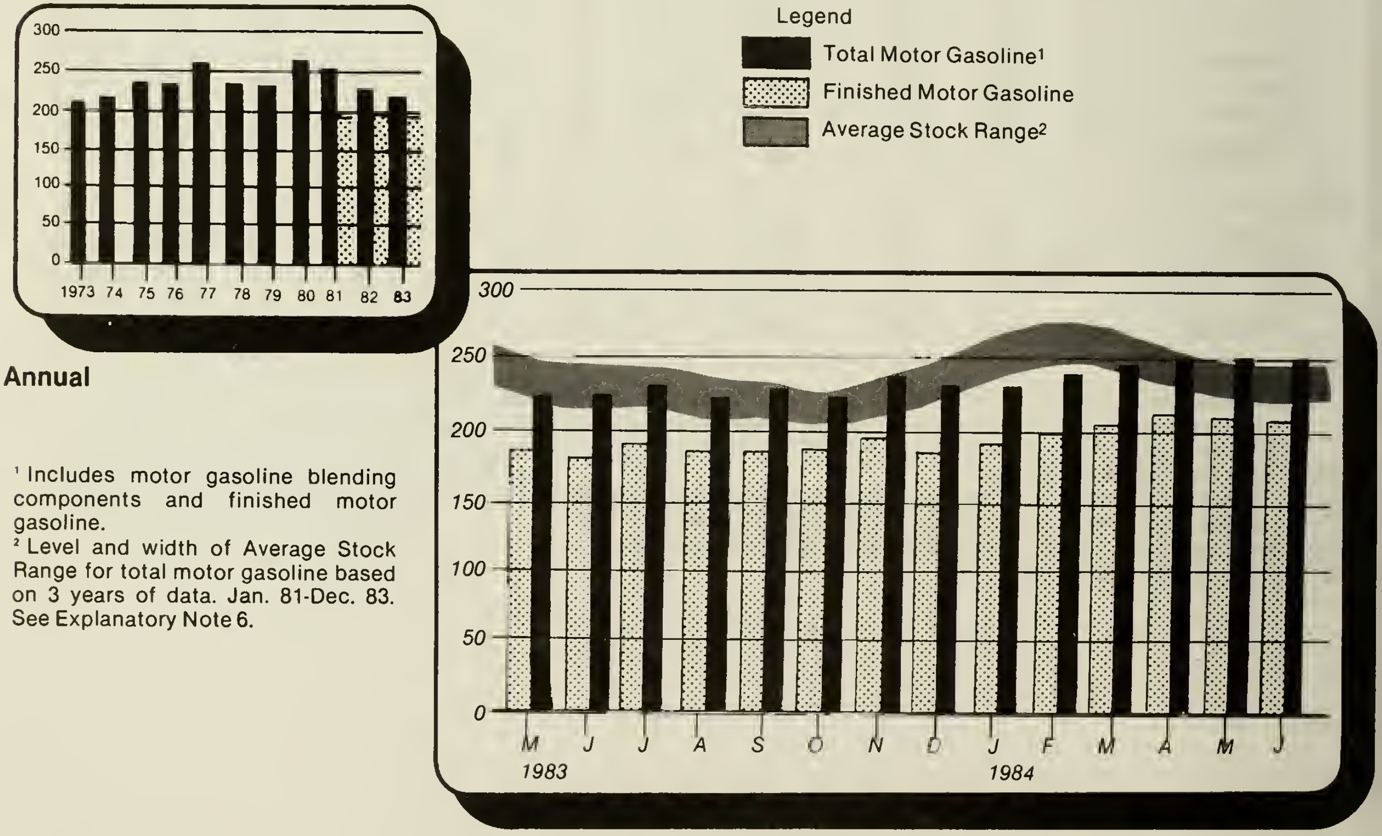
Motor Gasoline Supply and Disposition

(Thousand Barrels Per Day)



Motor Gasoline Ending Stocks

(Million Barrels)



---

[1] Includes motor gasoline blending components and finished motor gasoline.

[2] Level and width of Average Stock Range for total motor gasoline based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

LIBRARY U. OF I. URBANA-CHAMPAIGN

nished Motor Gasoline Supply and Disposition

	Supply			Disposition				Ending Stocks[1]	
	Total Production	Imports[2]	Stock Withdrawal[2] [3]	Exports	Products Supplied			Total Motor Gasoline[5]	Finished Motor Gasoline
					Total	Unleaded[4]	Unleaded		
	Thousand Barrels per Day						Percent of Total	Million Barrels	
73 AVERAGE	**6,535**	**134**	**9**	**4**	**6,674**	**NA**	**NA**	**209**	
74 AVERAGE	**6,360**	**204**	**-24**	**2**	**6,537**	**NA**	**NA**	[6] **218**	
75 AVERAGE	**6,520**	**184**	[6] **-28**	**2**	**6,675**	**NA**	**NA**	**235**	
76 AVERAGE	**6,841**	**131**	**10**	**3**	**6,978**	**NA**	**NA**	**231**	
77 AVERAGE	**7,033**	**217**	**-72**	**2**	**7,177**	**1,976**	**27.5**	**258**	
78 AVERAGE	**7,169**	**190**	**54**	**1**	**7,412**	**2,521**	**34.0**	**238**	
79 AVERAGE	**6,852**	**181**	**2**	(s)	**7,034**	**2,798**	**39.8**	**237**	
80 AVERAGE	**6,506**	**140**	**-66**	**1**	**6,579**	**3,067**	**46.6**	[6] **261**	
81 AVERAGE[7]	**6,405**	**157**	[6] **28**	**2**	**6,588**	**3,264**	**49.5**	**253**	
82 January	6,167	128	-316	18	5,961	3,067	51.5	261	213
February	5,899	133	172	8	6,196	3,210	51.8	257	208
March	5,994	183	334	44	6,466	3,358	51.9	247	198
April	6,095	185	650	33	6,897	3,495	50.7	221	179
May	6,319	182	177	23	6,655	3,415	51.3	214	173
June	6,754	230	-134	14	6,835	3,565	52.2	219	177
July	6,768	225	-178	24	6,790	3,577	52.7	226	183
August	6,419	291	-81	16	6,614	3,526	53.3	227	185
September	6,527	223	-198	22	6,531	3,404	52.1	234	191
October	6,262	185	-42	15	6,391	3,351	52.4	234	192
November	6,273	211	101	11	6,574	3,451	52.5	230	189
December	6,542	178	-165	7	6,549	3,485	53.2	[6] 235	[6] 194
AVERAGE	**6,338**	**197**	**25**	**20**	**6,539**	**3,409**	**52.1**		
983 January	6,065	153	[6] -167	(s)	6,051	3,364	55.6	250	207
February	5,848	128	24	(s)	6,000	3,264	54.4	250	207
March	5,906	186	768	23	6,836	3,622	53.0	223	183
April	6,201	255	-3	1	6,452	3,492	54.1	221	183
May	6,397	305	-83	1	6,617	3,558	53.8	223	185
June	6,655	277	84	22	6,994	3,792	54.2	223	183
July	6,707	302	-225	18	6,765	3,746	55.4	231	190
August	6,537	250	161	13	6,936	3,836	55.3	226	185
September	6,611	279	-149	14	6,727	3,691	54.9	229	189
October	6,188	330	72	2	6,588	3,711	56.3	227	187
November	6,634	269	-298	2	6,603	3,692	55.9	236	196
December	6,308	224	339	25	6,846	3,966	57.9	222	186
AVERAGE	**6,340**	**247**	**45**	**10**	**6,622**	**3,647**	**55.1**		
984 January	6,037	233	-1	1	6,268	3,606	57.5	225	186
February	6,320	303	-384	2	6,237	3,585	57.5	237	197
March	6,375	343	-197	9	6,512	3,747	57.5	243	203
April	6,528	308	-153	(s)	6,682	3,854	57.7	248	207
May*	R 6,650	R 329	R -106	(s)	R 6,873	3,990	58.1	R 253	R 211
June**	*6,783*	*220*	*-31*	NA	*6,967*	NA	NA	*249*	*208*
AVERAGE	**6,448**	**289**	**-144**	**NA**	**6,591**	**NA**	**NA**		

---

[1] Stocks are totals as of end of period.

[2] Beginning in 1981, excludes blending components.

[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[4] Includes gasohol.

[5] Includes motor gasoline blending components.

[6] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

[7] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.3.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

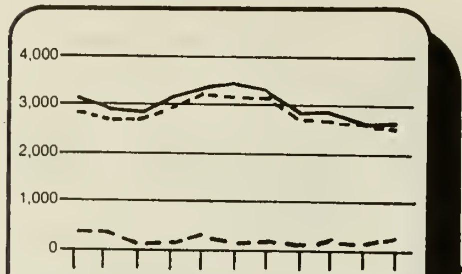
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

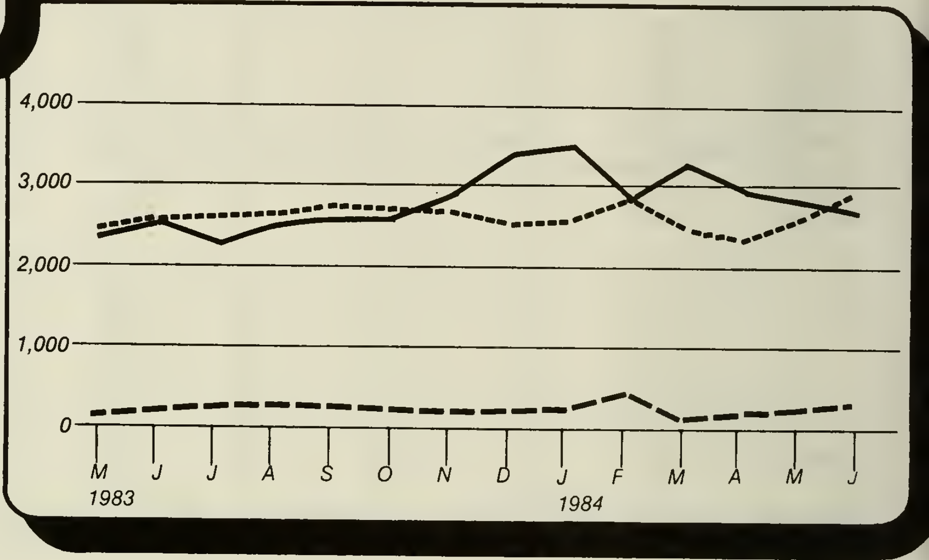
Distillate Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



Legend
━━━ Product Supplied
------- Total Production
— — — Imports

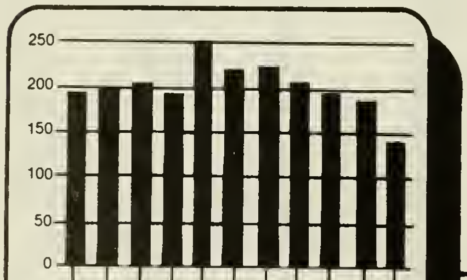
Annual



Monthly

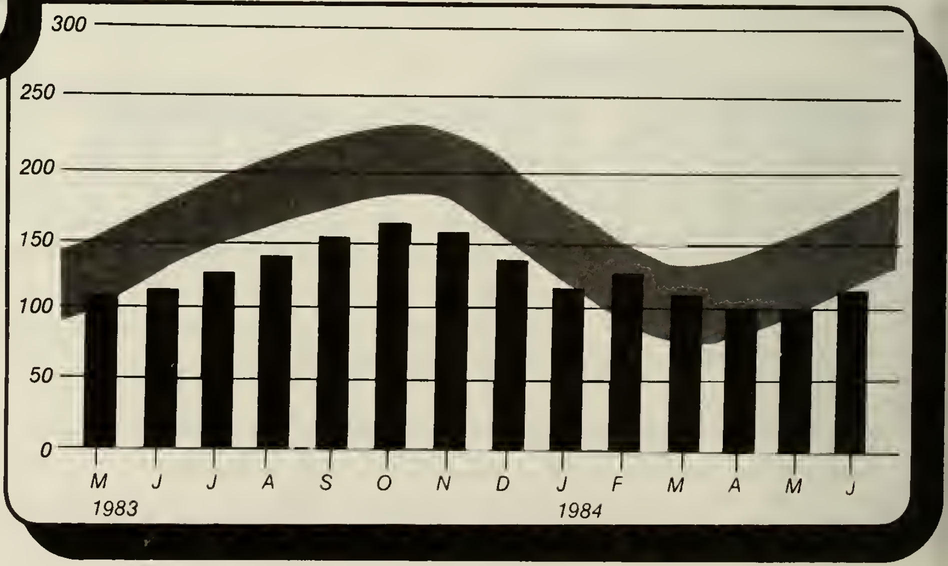
Distillate Fuel Oil Ending Stocks

(Million Barrels)



Legend
▨ Average Stock Range [1]

Annual



Monthly

---

[1] Level and width of Average Stock Range for distillate fuel oil is based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

Distillate Fuel Oil Supply and Disposition

	Supply				Disposition		Ending Stocks[1]
	Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Products Supplied[3]	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**2,822**	**392**	**-115**	**2**	**9**	**3,092**	**196**
1974 AVERAGE	**2,669**	**289**	**-9**	**2**	**2**	**2,948**	[4] **200**
1975 AVERAGE	**2,654**	**155**	[4] **40**	**2**	**1**	**2,851**	**209**
1976 AVERAGE	**2,924**	**146**	**62**	**1**	**1**	**3,133**	**186**
1977 AVERAGE	**3,278**	**250**	**-176**	**1**	**1**	**3,352**	**250**
1978 AVERAGE	**3,167**	**173**	**93**	**1**	**3**	**3,432**	**216**
1979 AVERAGE	**3,153**	**193**	**-34**	**1**	**3**	**3,311**	**229**
1980 AVERAGE	**2,662**	**142**	**64**	**1**	**3**	**2,866**	[4] **205**
1981 AVERAGE[5]	**2,613**	**173**	[4] **38**	**10**	**5**	**2,829**	**192**
1982 January	2,591	97	876	10	90	3,484	164
February	2,427	132	605	11	90	3,085	147
March	2,288	48	682	10	84	2,945	126
April	2,358	59	612	13	64	2,978	108
May	2,618	74	-183	10	75	2,444	114
June	2,729	102	-335	10	55	2,452	124
July	2,734	125	-789	11	24	2,058	148
August	2,507	80	-339	10	40	2,218	159
September	2,657	61	-85	12	139	2,507	161
October	2,838	91	-289	8	66	2,581	170
November	2,860	145	-514	8	24	2,475	186
December	2,655	109	225	10	143	2,855	[4] **179**
AVERAGE	**2,606**	**93**	**35**	**10**	**74**	**2,671**	
1983 January	2,321	68	[4] **580**	NA	173	2,797	168
February	2,135	59	691	NA	105	2,780	148
March	1,993	42	971	NA	59	2,947	118
April	2,171	73	500	NA	47	2,697	103
May	2,444	147	-186	NA	50	2,354	109
June	2,546	179	-161	NA	40	2,524	114
July	2,604	267	-546	NA	55	2,270	131
August	2,615	301	-379	NA	43	2,495	142
September	2,739	259	-386	NA	37	2,575	154
October	2,681	260	-276	NA	55	2,611	163
November	2,680	203	45	NA	54	2,874	161
December	2,522	221	676	NA	54	3,365	140
AVERAGE	**2,456**	**174**	**124**	**NA**	**64**	**2,690**	
1984 January	2,585	270	676	NA	40	3,490	119
February	2,864	458	-439	NA	41	2,842	132
March	2,480	115	727	NA	66	3,256	110
April	2,347	220	393	NA	32	2,929	98
May*	R 2,633	R 252	R -10	NA	48	R 2,827	R 98
June**	*2,909*	*309*	*-488*	NA	NA	*2,681*	*114*
AVERAGE	**2,634**	**269**	**152**	**NA**	**NA**	**3,008**	

---

[1] Stocks are totals as of end of period.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 4.

[4] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

[5] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

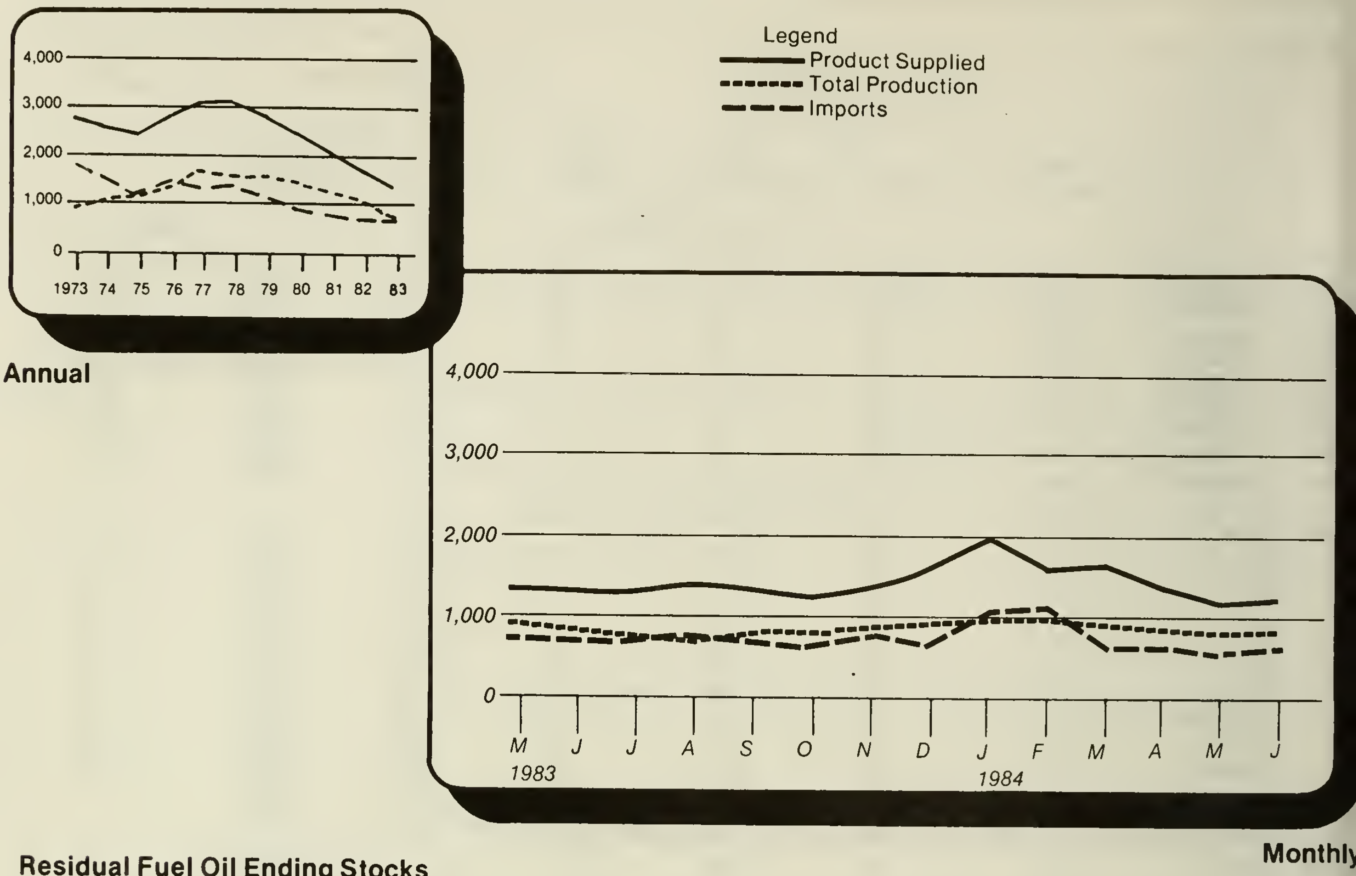
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

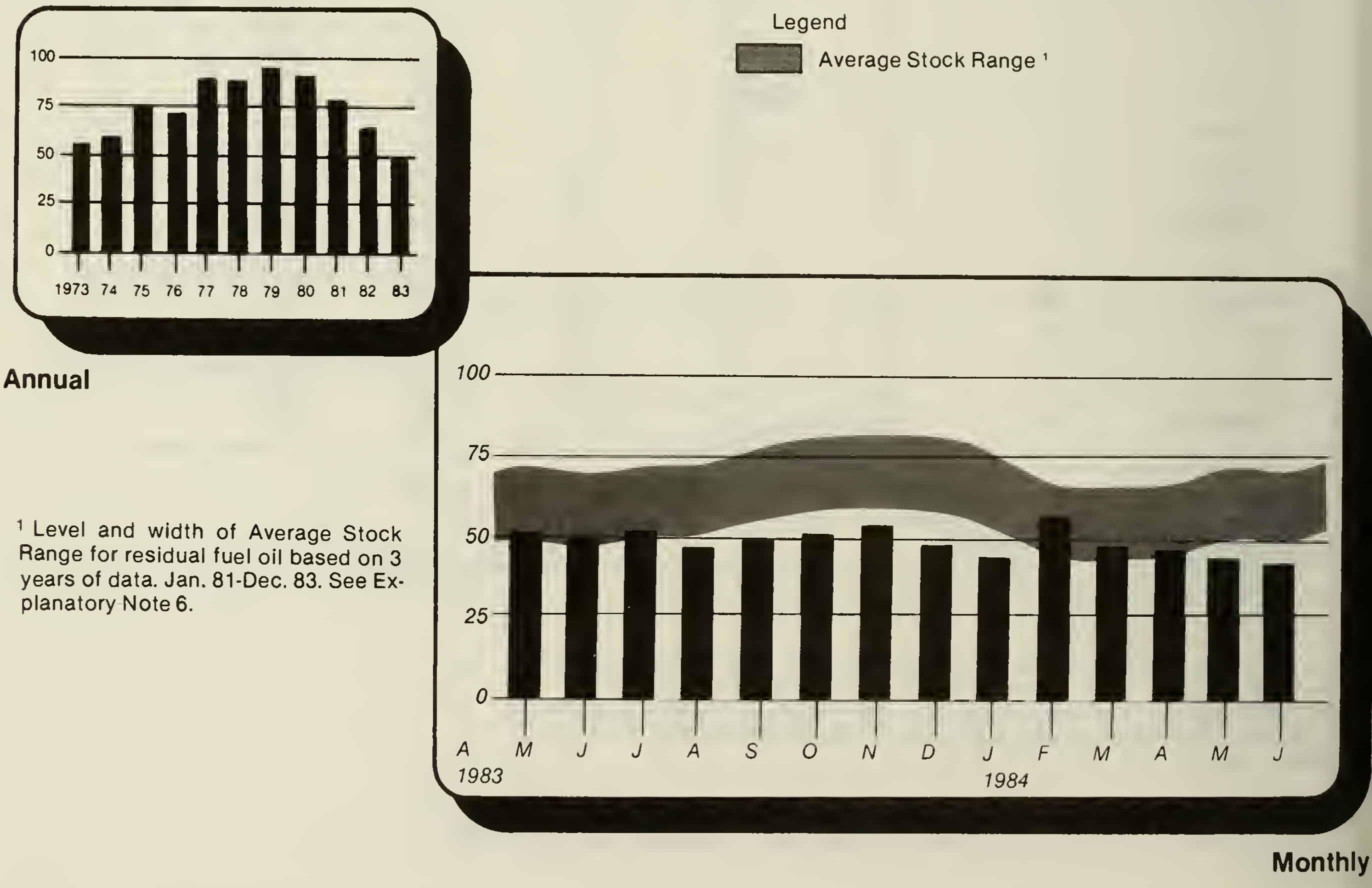
Residual Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



Residual Fuel Oil Ending Stocks

(Million Barrels)



[1] Level and width of Average Stock Range for residual fuel oil based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

Residual Fuel Oil Supply and Disposition

	Supply				Disposition		Ending Stocks[1]
	Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Products Supplied[3]	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**971**	**1,853**	**5**	**17**	**23**	**2,822**	**53**
1974 AVERAGE	**1,070**	**1,587**	**-17**	**13**	**14**	**2,639**	[4] **60**
1975 AVERAGE	**1,235**	**1,223**	[4] **2**	**15**	**15**	**2,462**	**74**
1976 AVERAGE	**1,377**	**1,413**	**5**	**17**	**12**	**2,801**	**72**
1977 AVERAGE	**1,754**	**1,359**	**-48**	**13**	**6**	**3,071**	**90**
1978 AVERAGE	**1,667**	**1,355**	**-1**	**13**	**13**	**3,023**	**90**
1979 AVERAGE	**1,687**	**1,151**	**-15**	**12**	**9**	**2,826**	**96**
1980 AVERAGE	**1,580**	**939**	**10**	**12**	**33**	**2,508**	[4] **92**
1981 AVERAGE[5]	**1,321**	**800**	[4] **37**	**48**	**118**	**2,088**	**78**
1982 January	1,235	831	301	53	235	2,185	69
February	1,186	956	363	53	213	2,344	58
March	1,123	912	12	53	197	1,903	58
April	1,166	788	150	52	234	1,923	54
May	1,128	742	-172	52	191	1,560	59
June	1,074	652	-57	50	217	1,501	61
July	1,028	657	56	49	239	1,550	59
August	965	551	203	47	235	1,531	53
September	1,008	872	-306	44	148	1,470	62
October	955	783	-57	43	234	1,490	64
November	989	837	-94	43	182	1,591	66
December	989	747	6	43	186	1,598	[4] **66**
AVERAGE	**1,070**	**776**	**32**	**48**	**209**	**1,716**	
1983 January	972	691	[4] **258**	NA	294	1,626	61
February	857	647	257	NA	191	1,570	53
March	835	686	227	NA	169	1,579	46
April	941	753	-10	NA	310	1,374	47
May	936	738	-141	NA	190	1,342	51
June	828	677	36	NA	218	1,323	50
July	769	684	-64	NA	90	1,299	52
August	710	739	115	NA	165	1,400	48
September	826	706	-47	NA	134	1,351	50
October	807	638	-50	NA	153	1,243	51
November	845	780	-97	NA	167	1,362	54
December	897	649	182	NA	141	1,587	49
AVERAGE	**852**	**699**	**55**	**NA**	**185**	**1,421**	
1984 January	953	1,061	119	NA	151	1,981	45
February	1,003	1,107	-420	NA	87	1,602	58
March	887	633	321	NA	204	1,637	48
April	840	637	9	NA	130	1,357	47
May*	R 829	R 554	R 35	NA	200	R 1,218	R 46
June**	*838*	*617*	*-14*	NA	NA	*1,277*	*44*
AVERAGE	**891**	**766**	**13**	**NA**	**NA**	**1,513**	

[1] Stocks are totals as of end of period.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 4.

[4] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

[5] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

Note: Geographic coverage is the 50 United States and the District of Columbia.

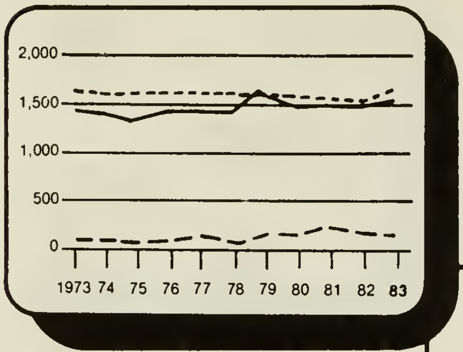
Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

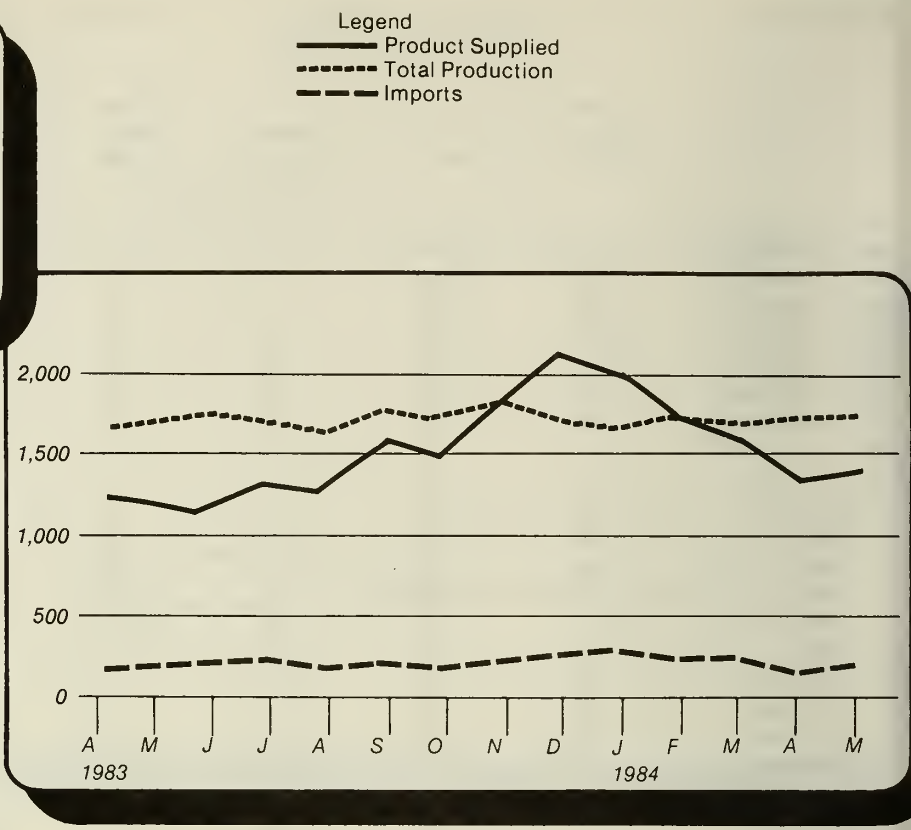
LIBRARY U. OF I. URBANA-CHAMPAIGN

Liquefied Petroleum Gases Supply and Disposition

(Thousand Barrels Per Day)



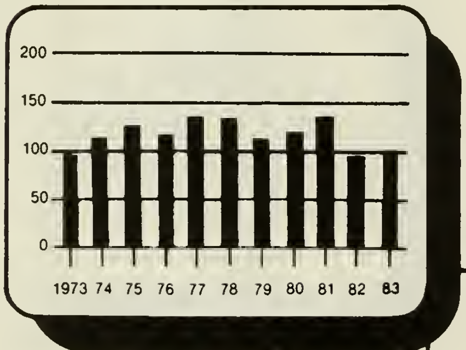
Annual



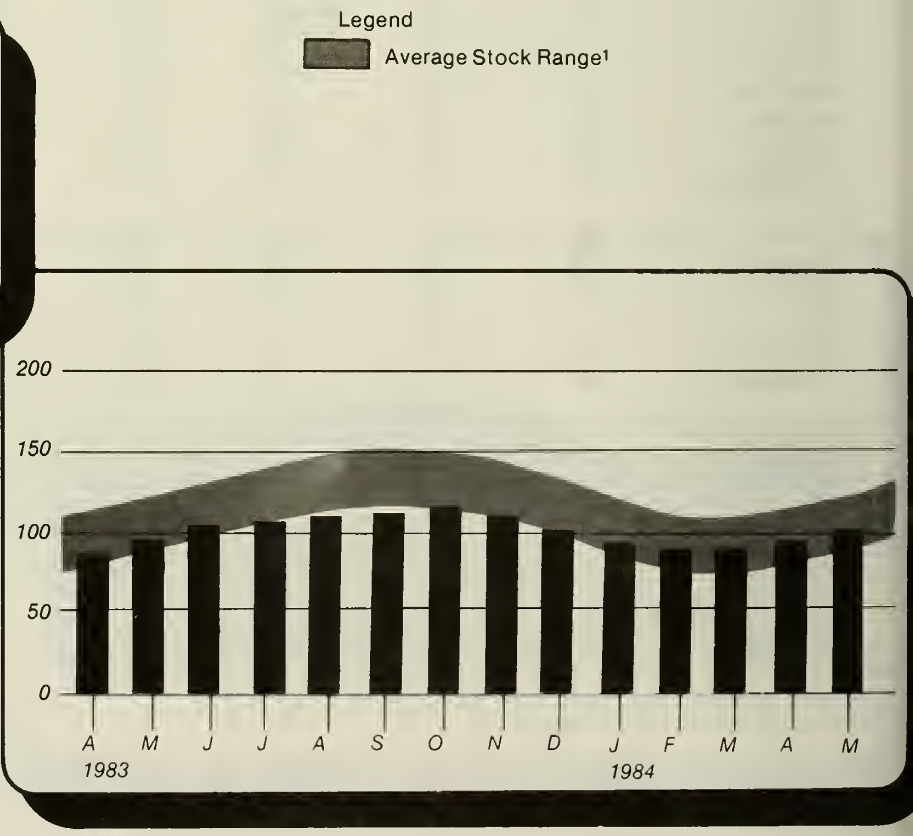
Month

Liquefied Petroleum Gases Ending Stocks

(Million Barrels)



Annual



Month

---

[1] Level and width of Average Stock range for liquefied petroleum gases based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

Liquefied Petroleum Gases[1]Supply and Disposition

	Supply			Disposition			Ending Stocks[2]
	Total Production	Imports	Stock Withdrawal[3]	Refinery Inputs	Exports	Products Supplied	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**1,600**	**132**	**-35**	**220**	**27**	**1,449**	**99**
1974 AVERAGE	**1,565**	**123**	**-38**	**220**	**25**	**1,406**	[4] **113**
1975 AVERAGE	**1,527**	**112**	[4] **-35**	**246**	**26**	**1,333**	**125**
1976 AVERAGE	**1,535**	**130**	**24**	**260**	**25**	**1,404**	**116**
1977 AVERAGE	**1,566**	**161**	**-55**	**233**	**18**	**1,422**	**136**
1978 AVERAGE	**1,537**	**123**	**12**	**239**	**20**	**1,413**	**132**
1979 AVERAGE	**1,556**	**217**	**70**	**236**	**15**	**1,592**	**111**
1980 AVERAGE	**1,535**	**216**	**-27**	**233**	**21**	**1,469**	[4] **120**
1981 AVERAGE	**1,571**	**244**	[4] **-18**	**289**	**42**	**1,466**	**135**
1982 January	1,565	314	443	391	67	1,863	121
February	1,466	291	243	327	51	1,621	114
March	1,544	223	211	289	74	1,615	108
April	1,506	188	98	257	77	1,458	105
May	1,565	186	-71	234	43	1,403	107
June	1,515	192	-86	262	106	1,254	109
July	1,476	227	-13	253	37	1,399	110
August	1,511	125	-45	254	61	1,276	111
September	1,538	247	37	274	85	1,463	110
October	1,517	194	97	306	81	1,421	107
November	1,542	267	175	363	37	1,583	102
December	1,580	258	256	395	56	1,642	[4] 94
AVERAGE	**1,528**	**226**	**111**	**300**	**65**	**1,499**	
1983 January	1,611	240	[4] 520	313	118	1,939	86
February	1,600	305	128	244	76	1,713	82
March	1,543	166	-9	197	127	1,377	82
April	1,607	124	-156	198	116	1,260	87
May	1,613	167	-225	207	84	1,263	94
June	1,664	172	-334	203	59	1,241	104
July	1,656	191	-221	217	55	1,354	111
August	1,586	160	-199	229	29	1,289	117
September	1,705	178	-30	236	86	1,531	118
October	1,688	160	-81	268	32	1,467	120
November	1,785	180	70	362	33	1,640	118
December	1,645	247	575	363	66	2,038	[4] 101
AVERAGE	**1,642**	**190**	**4**	**253**	**73**	**1,509**	
1984 January	1,610	269	[4] 470	333	23	1,993	93
February	1,690	237	146	323	41	1,708	89
March	1,685	241	12	289	68	1,581	89
April	1,711	155	-170	253	54	1,389	94
May*	1,709	211	-221	244	42	1,412	101
AVERAGE	**1,681**	**223**	**47**	**288**	**46**	**1,617**	

---

[1] Includes ethane, propane, normal butane, and isobutane.
Beginning in January 1984, unfractionated stream is reported by individual product.

[2] Stocks are totals as of end of period.

[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[4] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

* See Explanatory Note 9.5.

Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Other Petroleum Products[1] Supply and Disposition

		Supply			Disposition			Ending Stocks[2]
		Total Production	Imports	Stock Withdrawal[3]	Refinery Inputs	Exports	Products Supplied	
		Thousand Barrels per Day						Million Barrels
1973	**AVERAGE**	**3,693**	**502**	**-9**	**750**	**166**	**3,270**	**208**
1974	**AVERAGE**	**3,558**	**432**	**-28**	**665**	**174**	**3,123**	[4] **218**
1975	**AVERAGE**	**3,424**	**277**	[4] **-2**	**537**	**160**	**3,002**	**219**
1976	**AVERAGE**	**3,643**	**206**	**-5**	**524**	**175**	**3,145**	**220**
1977	**AVERAGE**	**3,912**	**205**	**-27**	**514**	**165**	**3,410**	**230**
1978	**AVERAGE**	**4,046**	**166**	**14**	**492**	**167**	**3,568**	**225**
1979	**AVERAGE**	**4,153**	**195**	**-37**	**352**	**209**	**3,749**	**238**
1980	**AVERAGE**	**3,956**	**210**	**-23**	**311**	**198**	**3,634**	[4] **247**
1981	**AVERAGE**	**3,739**	**226**	[4] **46**	**723**	**199**	**3,088**	**282**
1982	January	3,171	269	-7	624	180	2,631	282
	February	3,403	305	-153	663	138	2,755	287
	March	3,466	243	-191	725	161	2,631	293
	April	3,408	309	73	796	204	2,790	290
	May	3,317	318	184	824	210	2,785	285
	June	3,547	315	123	812	216	2,954	281
	July	3,660	408	-1	856	187	3,023	281
	August	3,583	346	217	743	202	3,201	274
	September	3,533	375	105	749	213	3,051	271
	October	3,529	383	244	915	266	2,976	264
	November	3,498	423	-28	837	269	2,786	264
	December	3,324	313	366	885	275	2,842	[4] 253
	AVERAGE	**3,453**	**334**	**80**	**787**	**211**	**2,869**	
1983	January	3,194	322	[4] -419	588	271	2,239	271
	February	3,229	321	12	673	232	2,658	270
	March	3,381	319	-147	572	249	2,732	275
	April	3,299	404	-24	592	247	2,840	276
	May	3,405	374	35	705	242	2,866	275
	June	3,610	444	96	717	292	3,144	272
	July	3,636	425	148	735	209	3,265	267
	August	3,695	482	30	668	242	3,297	266
	September	3,792	497	-6	788	236	3,255	266
	October	3,578	424	-107	711	195	2,990	270
	November	3,568	441	95	912	238	2,957	267
	December	3,123	479	361	883	257	2,823	[4] 256
	AVERAGE	**3,460**	**411**	**6**	**712**	**242**	**2,923**	
1984	January	3,391	486	[4] -177	561	207	2,931	253
	February	3,582	586	-256	751	225	2,935	261
	March	3,510	466	-218	530	258	2,969	268
	April	3,584	582	-207	627	268	3,063	274
	May*	3,683	642	-118	775	257	3,175	277
	AVERAGE	**3,549**	**552**	**-195**	**648**	**243**	**3,015**	

---

[1] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[2] Stocks are totals as of end of period.

[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[4] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

* See Explanatory Note 9.6.

Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

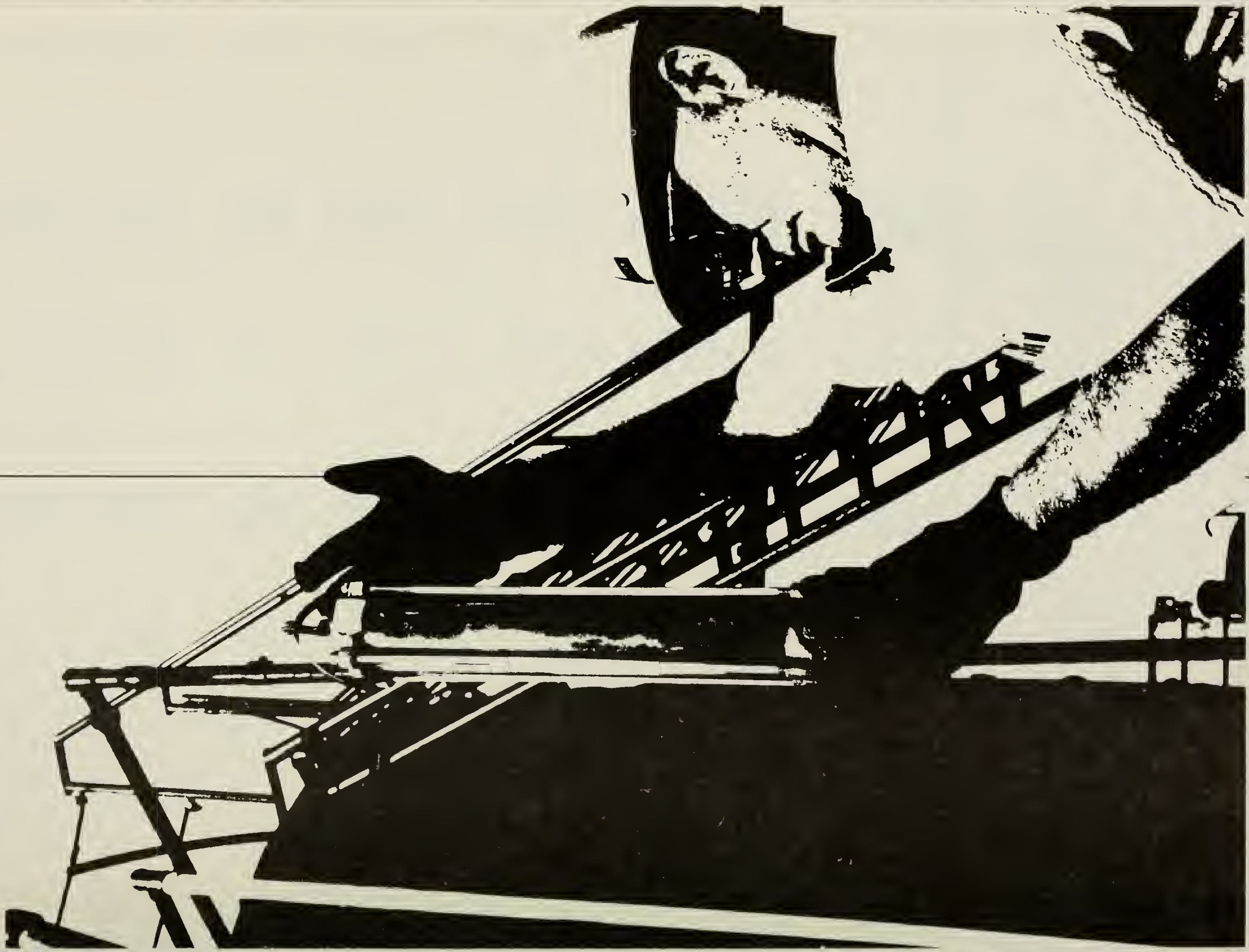
LIBRARY U. OF I. URBANA-CHAMPAIGN

Sources

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual.*
2. 1977 through 1980: Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report*.
3. January 1981 through December 1983: EIA, *Petroleum Supply Annual.*
4. January 1984 through May 1984: Detailed statistics in appropriate issues of the *Petroleum Supply Monthly*. (See Explanatory Notes 9.1 through 9.6).
5. June 1984: Estimates based on EIA weekly data (except domestic crude oil production) (see Explanatory Note 1.1).
6. January 1984 through June 1984: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey. (See Explanatory Note 3).

LIBRARY U. OF I. URBANA-CHAMPAIGN

Detailed Statistics



LIBRARY U. OF I. URBANA-CHAMPAIGN

le 1. U.S. Petroleum Balance, May 1984

	Current Month		Year-to-date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)				
Field Production				
Alaska	E 55,574	1,793	E 265,689	1,748
Lower 48 States	E 215,729	6,959	E 1,057,969	6,960
Total U.S.	E 271,303	8,752	E 1,323,658	8,708
Net Imports				
Imports (Gross Excluding SPR)	114,114	3,681	484,906	3,190
SPR Imports	7,620	246	25,940	171
Exports	6,782	219	29,327	193
Imports (Net Including SPR)	114,951	3,708	481,519	3,168
Other Sources				
SPR Withdrawal (+) or Addition (-)	-7,597	-245	-25,389	-167
Other Stock Withdrawal (+) or Addition (-)	-11,497	-371	-15,937	-105
Product Supplied and Losses	-1,964	-63	-9,821	-65
Unaccounted for [1]	14,342	463	62,168	409
Total Other Sources	-6,716	-217	11,021	73
Crude Input to Refineries	379,538	12,243	1,816,198	11,949
13) = (3) + (7) + (12)				
atural Gas Plant Liquids (NGPL)				
Field Production	49,914	1,610	244,007	1,605
Net Imports [2]	2,202	71	6,181	41
Stock Withdrawal (+) or Addition (-) [2]	-1,157	-37	-1,280	-8
Total NGPL Supply	50,959	1,644	248,908	1,638
ther Liquids				
Unfinished Oils and Gasoline Blending Components, Total				
Stock Withdrawal (+) or Addition (-)	-3,431	-111	-19,916	-131
Imports	11,623	375	49,189	324
Other Hydrocarbons and Alcohol New Supply (Field Production)	1,662	54	7,209	47
Refinery Processing Gain [1]	17,905	578	84,395	555
Crude Oil Product Supplied	1,909	62	9,626	63
Total Other Liquids	29,668	957	130,503	859
(23) = (18) through (22)				
Total Production of Products [3]	460,165	14,844	2,195,609	14,445
24) = (13) + (17) + (23)				
et Imports of Refined Products [3]				
Imports (Gross)	47,757	1,541	268,570	1,767
Exports	16,891	545	74,414	490
Imports (Net)	30,866	996	194,156	1,277
Total New Supply of Products	491,031	15,840	2,389,765	15,722
28) = (24) + (27)				
Refined Products Stock Withdrawal (+) or Addition (-) [3]	-8,490	-274	18,607	122
Total Petroleum Products Supplied for Domestic Use	482,541	15,566	2,408,372	15,845
30) = (28) + (29)				
Finished Motor Gasoline	213,052	6,873	990,541	6,517
Distillate Fuel Oil	87,644	2,827	467,048	3,073
Residual Fuel Oil	37,753	1,218	237,066	1,560
Liquefied Petroleum Gases	43,771	1,412	245,754	1,617
Other [4]	98,412	3,175	458,336	3,015
Crude Oil	1,909	62	9,626	63
Total Product Supplied	482,541	15,566	2,408,372	15,845
(37) = (31) through (36)				
nding Stocks, All Oils				
Crude Oil and Lease Condensate (Excluding SPR)	359,113	--	359,113	--
Strategic Petroleum Reserve (SPR)	404,478	--	404,478	--
Unfinished Oils	122,221	--	122,221	--
Gasoline Blending Components [5]	42,715	--	42,715	--
Pentanes Plus	10,045	--	10,045	--
Finished Refined Products [3]	558,443	--	558,443	--
Total Stocks	1,497,015	--	1,497,015	--

A balancing item.
Includes products in the pentanes plus category only.
For products included see Explanatory Note 9.7.
Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil and liquefied petroleum gases.
includes other hydrocarbons and alcohol.
= Estimated.
-- Not Applicable.
te: Total may not equal sum of components due to independent rounding.
urces and estimation procedures: See Explanatory Notes 1, 2 and 9.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, May 1984 (Thousand Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 271,303	**0**	**121,733**	**-19,094**	**14,342**	**55**	**379,538**	**6,782**	**1,909**	**763,591**
Natural Gas Liquids and LRGs	**49,729**	**12,167**	**8,821**	**-8,023**	**0**	**0**	**12,934**	**1,374**	**48,386**	**110,592**
Pentanes Plus	8,927	0	2,285	-1,157	0	0	5,358	82	4,614	10,045
Liquefied Petroleum Gases	40,802	12,167	6,536	-6,866	0	0	7,576	1,292	43,771	100,547
Ethane	15,379	773	3,116	-45	0	0	71	164	18,987	21,312
Propane	16,027	8,754	1,729	-5,305	0	0	84	522	20,599	50,850
Normal Butane	6,313	2,659	1,028	-1,459	0	0	3,729	523	4,289	19,180
Isobutane	3,083	-19	663	-57	0	0	3,692	82	-104	9,205
Other Liquids	**1,662**	**0**	**11,623**	**-3,431**	**0**	**0**	**18,661**	**0**	**-8,807**	**164,936**
Other Hydrocarbons and Alcohol	1,662	0	0	-30	0	0	1,632	0	0	268
Unfinished Oils	0	0	7,968	-1,962	0	0	15,379	0	-9,373	122,221
Motor Gasoline Blending Components	0	0	3,655	-1,436	0	0	1,657	0	562	42,061
Aviation Gasoline Blending Components	0	0	0	-3	0	0	-7	0	4	386
Finished Petroleum Products	**185**	**416,871**	**41,221**	**-1,624**	**0**	**0**	**0**	**15,600**	**441,054**	**457,896**
Finished Motor Gasoline	83	206,054	10,212	-3,291	0	0	0	6	213,052	210,692
Finished Leaded Motor Gasoline	57	84,316	5,094	-111	0	0	0	6	89,350	101,151
Finished Unleaded Motor Gasoline	26	121,738	5,119	-3,180	0	0	0	0	123,703	109,541
Finished Aviation Gasoline	0	815	41	275	0	0	0	0	1,131	2,295
Naphtha-Type Jet Fuel	0	6,491	796	141	0	0	0	0	7,428	6,578
Kerosene-Type Jet Fuel	0	27,301	899	-358	0	0	0	22	27,820	34,339
Kerosene	1	2,540	39	-929	0	0	0	5	1,646	7,612
Distillate Fuel Oil	41	81,597	7,822	-318	0	0	0	1,498	87,644	98,158
Residual Fuel Oil	0	25,698	17,178	1,079	0	0	0	6,202	37,753	46,291
Naphtha < 400 Deg. for Petro. Feed. Use	0	3,806	698	305	0	0	0	175	4,634	1,739
Other Oils > 400 Deg. for Petro. Feed. Use	0	8,508	0	-8	0	0	0	510	7,990	2,174
Special Naphthas	0	1,631	2,815	392	0	0	0	32	4,806	2,843
Lubricants	0	4,847	222	88	0	0	0	801	4,356	10,931
Waxes	0	428	70	94	0	0	0	42	550	556
Petroleum Coke	0	14,047	0	792	0	0	0	6,266	8,573	4,901
Asphalt and Road Oil	0	13,081	83	9	0	0	0	3	13,170	26,612
Still Gas	0	18,087	0	0	0	0	0	0	18,087	0
Miscellaneous Products	60	1,940	345	105	0	0	0	37	2,413	2,175
Total	322,879	429,038	183,398	-32,172	14,342	55	411,133	23,756	482,541	1,497,015

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products, January - May 1984
(Thousand Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E **1,323,658**	**0**	**510,846**	**-41,326**	**62,168**	**195**	**1,816,198**	**29,327**	**9,626**	**763,591**
Natural Gas Liquids and LRGs	**243,090**	**55,434**	**40,481**	**5,930**	**0**	**0**	**73,100**	**7,358**	**264,476**	**110,592**
Pentanes Plus	43,086	0	6,595	-1,280	0	0	29,265	414	18,722	10,045
Liquefied Petroleum Gases	200,004	55,434	33,885	7,210	0	0	43,835	6,944	245,754	100,547
Ethane	76,101	3,741	14,277	67	0	0	336	829	93,021	21,312
Propane	78,789	41,956	10,635	4,430	0	0	620	3,866	131,324	50,850
Normal Butane	30,431	9,830	5,432	1,209	0	0	25,148	1,835	19,918	19,180
Isobutane	14,683	-93	3,542	1,504	0	0	17,731	414	1,491	9,205
Other Liquids	**7,209**	**0**	**49,189**	**-19,916**	**0**	**0**	**69,166**	**0**	**-32,684**	**164,936**
Other Hydrocarbons and Alcohol	7,209	0	0	17	0	0	7,226	0	0	268
Unfinished Oils	0	0	38,177	-14,723	0	0	46,349	0	-22,895	122,221
Motor Gasoline Blending Components	0	0	11,012	-5,141	0	0	15,660	0	-9,789	42,061
Aviation Gasoline Blending Components	0	0	0	-69	0	0	-69	0	0	386
Finished Petroleum Products	**917**	**1,987,425**	**234,685**	**11,397**	**0**	**0**	**0**	**67,470**	**2,166,954**	**457,896**
Finished Motor Gasoline	418	969,633	46,063	-25,197	0	0	0	376	990,541	210,692
Finished Leaded Motor Gasoline	277	402,322	24,143	-7,067	0	0	0	376	419,299	101,151
Finished Unleaded Motor Gasoline	141	567,311	21,919	-18,130	0	0	0	0	571,241	109,541
Finished Aviation Gasoline	0	3,398	45	-4	0	0	0	0	3,439	2,295
Naphtha-Type Jet Fuel	0	30,134	3,051	-365	0	0	0	94	32,726	6,578
Kerosene-Type Jet Fuel	0	134,942	7,996	-1,971	0	0	0	578	140,389	34,339
Kerosene	6	17,208	1,184	248	0	0	0	11	18,636	7,612
Distillate Fuel Oil	198	391,904	39,647	42,244	0	0	0	6,944	467,048	98,158
Residual Fuel Oil	0	136,995	120,892	2,817	0	0	0	23,638	237,066	46,291
Naphtha < 400 Deg. for Petro. Feed. Use	0	20,229	4,036	-27	0	0	0	1,081	23,157	1,739
Other Oils > 400 Deg. for Petro. Feed. Use	0	40,973	0	-417	0	0	0	2,181	38,375	2,174
Special Naphthas	-50	8,438	7,795	310	0	0	0	255	16,238	2,843
Lubricants	0	24,107	1,548	1,144	0	0	0	2,616	24,183	10,931
Waxes	0	2,151	218	221	0	0	0	193	2,397	556
Petroleum Coke	0	68,223	0	580	0	0	0	29,299	39,504	4,901
Asphalt and Road Oil	0	44,364	136	-7,820	0	0	0	46	36,634	26,612
Still Gas	0	84,899	0	0	0	0	0	0	84,899	0
Miscellaneous Products	345	9,827	2,073	-366	0	0	0	157	11,721	2,175
Total	**1,574,874**	**2,042,859**	**835,201**	**-43,915**	**62,168**	**195**	**1,958,464**	**104,156**	**2,408,372**	**1,497,015**

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, May 1984 (Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,752	0	3,927	-616	463	2	12,243	219	62
Natural Gas Liquids and LRGs	1,604	392	285	-259	0	0	417	44	1,561
Pentanes Plus	288	0	74	-37	0	0	173	3	149
Liquefied Petroleum Gases	1,316	392	211	-221	0	0	244	42	1,412
Ethane	496	25	101	-1	0	0	2	5	612
Propane	517	282	56	-171	0	0	3	17	664
Normal Butane	204	86	33	-47	0	0	120	17	138
Isobutane	99	-1	21	-2	0	0	119	3	-3
Other Liquids	54	0	375	-111	0	0	602	0	-284
Other Hydrocarbons and Alcohol	54	0	0	-1	0	0	53	0	0
Unfinished Oils	0	0	257	-63	0	0	496	0	-302
Motor Gasoline Blending Components	0	0	118	-46	0	0	53	0	18
Aviation Gasoline Blending Components	0	0	0	(s)	0	0	(s)	0	(s)
Finished Petroleum Products	6	13,447	1,330	-52	0	0	0	503	14,228
Finished Motor Gasoline	3	6,647	329	-106	0	0	0	(s)	6,873
Finished Leaded Motor Gasoline	2	2,720	164	-4	0	0	0	(s)	2,882
Finished Unleaded Motor Gasoline	1	3,927	165	-103	0	0	0	0	3,990
Finished Aviation Gasoline	0	26	1	9	0	0	0	0	36
Naphtha-Type Jet Fuel	0	209	26	5	0	0	0	0	240
Kerosene-Type Jet Fuel	0	881	29	-12	0	0	0	1	897
Kerosene	(s)	82	1	-30	0	0	0	(s)	53
Distillate Fuel Oil	1	2,632	252	-10	0	0	0	48	2,827
Residual Fuel Oil	0	829	554	35	0	0	0	200	1,218
Naphtha < 400 Deg. for Petro. Feed. Use	0	123	23	10	0	0	0	6	149
Other Oils > 400 Deg. for Petro. Feed. Use	0	274	0	(s)	0	0	0	16	258
Special Naphthas	0	53	91	13	0	0	0	1	155
Lubricants	0	156	7	3	0	0	0	26	141
Waxes	0	14	2	3	0	0	0	1	18
Petroleum Coke	0	453	0	26	0	0	0	202	277
Asphalt and Road Oil	0	422	3	(s)	0	0	0	(s)	425
Still Gas	0	583	0	0	0	0	0	0	583
Miscellaneous Products	2	63	11	3	0	0	0	1	78
Total	10,415	13,840	5,916	-1,038	463	2	13,262	766	15,566

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - May 1984
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	**E 8,708**	**0**	**3,361**	**-272**	**409**	**1**	**11,949**	**193**	**63**
Natural Gas Liquids and LRGs	**1,599**	**365**	**266**	**39**	**0**	**0**	**481**	**48**	**1,740**
Pentanes Plus	283	0	43	-8	0	0	193	3	123
Liquefied Petroleum Gases	1,316	365	223	47	0	0	288	46	1,617
Ethane	501	25	94	(s)	0	0	2	5	612
Propane	518	276	70	29	0	0	4	25	864
Normal Butane	200	65	36	8	0	0	165	12	131
Isobutane	97	-1	23	10	0	0	117	3	10
Other Liquids	**47**	**0**	**324**	**-131**	**0**	**0**	**455**	**0**	**-215**
Other Hydrocarbons and Alcohol	47	0	0	(s)	0	0	48	0	0
Unfinished Oils	0	0	251	-97	0	0	305	0	-151
Motor Gasoline Blending Components	0	0	72	-34	0	0	103	0	-64
Aviation Gasoline Blending Components	0	0	0	(s)	0	0	(s)	0	0
Finished Petroleum Products	**6**	**13,075**	**1,544**	**75**	**0**	**0**	**0**	**444**	**14,256**
Finished Motor Gasoline	3	6,379	303	-166	0	0	0	2	6,517
Finished Leaded Motor Gasoline	2	2,647	159	-46	0	0	0	2	2,759
Finished Unleaded Motor Gasoline	1	3,732	144	-119	0	0	0	0	3,758
Finished Aviation Gasoline	0	22	(s)	(s)	0	0	0	0	23
Naphtha-Type Jet Fuel	0	198	20	-2	0	0	0	1	215
Kerosene-Type Jet Fuel	0	888	53	-13	0	0	0	4	924
Kerosene	(s)	113	8	2	0	0	0	(s)	123
Distillate Fuel Oil	1	2,578	261	278	0	0	0	46	3,073
Residual Fuel Oil	0	901	795	19	0	0	0	156	1,560
Naphtha < 400 Deg. for Petro. Feed. Use	0	133	27	(s)	0	0	0	7	152
Other Oils > 400 Deg. for Petro. Feed. Use	0	270	0	-3	0	0	0	14	252
Special Naphthas	(s)	56	51	2	0	0	0	2	107
Lubricants	0	159	10	8	0	0	0	17	159
Waxes	0	14	1	1	0	0	0	1	16
Petroleum Coke	0	449	0	4	0	0	0	193	260
Asphalt and Road Oil	0	292	1	-51	0	0	0	(s)	241
Still Gas	0	559	0	0	0	0	0	0	559
Miscellaneous Products	2	65	14	-2	0	0	0	1	77
Total	**10,361**	**13,440**	**5,495**	**-289**	**409**	**1**	**12,885**	**685**	**15,845**

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 6. PAD District I, Supply and Disposition of Crude Oil and Petroleum Products, May 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 1,925	0	29,520	-386	773	3,193	0	35,025	0	0	15,942
Natural Gas Liquids and LRGs	772	1,275	2,525	-211	0	1,572	0	282	32	5,619	3,012
Liquefied Petroleum Gases	694	1,275	433	-219	0	1,572	0	240	32	3,483	2,961
Pentanes Plus	78	0	2,092	8	0	0	0	42	0	2,136	51
Other Liquids	316	0	4,269	-2,656	0	1,168	0	3,155	0	-58	20,911
Other Hydrocarbons and Alcohol	316	0	0	-8	0	0	0	308	0	0	35
Unfinished Oils	0	0	2,243	-2,541	0	1,168	0	2,493	0	-1,623	15,971
Motor Gasoline Blending Components	0	0	2,027	-107	0	0	0	354	0	1,566	4,905
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	68	38,827	31,786	-7,942	0	71,098	0	0	485	133,352	145,832
Finished Motor Gasoline	68	18,292	8,705	-4,130	0	44,900	0	0	2	67,834	66,209
Finished Leaded Motor Gasoline	42	6,033	4,047	-1,354	0	15,677	0	0	2	24,443	30,099
Finished Unleaded Motor Gasoline	26	12,259	4,659	-2,776	0	29,223	0	0	0	43,391	36,110
Finished Aviation Gasoline	0	0	33	-9	0	224	0	0	0	248	410
Naphtha-Type Jet Fuel	0	785	435	-211	0	470	0	0	0	1,479	929
Kerosene-Type Jet Fuel	0	870	865	-483	0	8,700	0	0	(s)	9,952	8,201
Kerosene	0	44	39	-169	0	62	0	0	5	-29	3,172
Distillate Fuel Oil	0	8,524	7,104	-2,696	0	13,905	0	0	5	26,831	32,531
Residual Fuel Oil	0	3,073	13,673	-385	0	1,297	0	0	(s)	17,658	23,094
Naphtha and Other Oils for Petro. Feed.	0	280	18	63	0	5	0	0	80	286	273
Special Naphthas	0	61	641	-17	0	313	0	0	5	992	722
Lubricants	0	514	185	51	0	871	0	0	124	1,497	2,977
Waxes	0	69	9	18	0	6	0	0	5	97	97
Petroleum Coke	0	975	0	244	0	0	0	0	243	976	545
Asphalt and Road Oil	0	3,366	71	-322	0	166	0	0	1	3,280	6,266
Still Gas	0	1,565	0	0	0	0	0	0	0	1,565	0
Miscellaneous Products	0	409	8	104	0	179	0	0	16	685	406
Total	3,081	40,102	68,100	-11,195	773	77,031	0	38,462	517	138,913	185,697

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 7. PAD District II, Supply and Disposition of Crude Oil and Petroleum Products, May 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	**E 32,330**	**0**	**18,706**	**-1,936**	**33,061**	**3,483**	**5**	**85,041**	**597**	**0**	**79,397**
Natural Gas Liquids and LRGs	**10,181**	**2,424**	**4,715**	**-3,857**	**0**	**562**	**0**	**3,961**	**553**	**9,511**	**34,594**
Liquefied Petroleum Gases	8,736	2,424	4,715	-3,322	0	357	0	2,533	471	9,906	30,864
Pentanes Plus	1,445	0	0	-535	0	205	0	1,428	82	-395	3,730
Other Liquids	**250**	**0**	**496**	**2,709**	**0**	**83**	**0**	**3,325**	**0**	**213**	**25,112**
Other Hydrocarbons and Alcohol	250	0	0	-19	0	0	0	231	0	0	129
Unfinished Oils	0	0	496	2,524	0	83	0	2,857	0	246	17,106
Motor Gasoline Blending Components	0	0	0	142	0	0	0	175	0	-33	7,717
Aviation Gasoline Blending Components	0	0	0	62	0	0	0	62	0	0	160
Finished Petroleum Products	**13**	**93,634**	**1,833**	**6,164**	**0**	**21,162**	**0**	**0**	**278**	**122,527**	**119,308**
Finished Motor Gasoline	0	53,994	170	2,953	0	13,304	0	0	1	70,420	60,590
Finished Leaded Motor Gasoline	0	23,928	97	1,497	0	7,460	0	0	1	32,980	30,644
Finished Unleaded Motor Gasoline	0	30,066	74	1,456	0	5,844	0	0	0	37,440	29,946
Finished Aviation Gasoline	0	88	0	131	0	169	0	0	0	388	521
Naphtha-Type Jet Fuel	0	1,058	0	39	0	114	0	0	0	1,211	1,515
Kerosene-Type Jet Fuel	0	4,073	0	-86	0	1,820	0	0	0	5,807	8,026
Kerosene	0	365	0	-485	0	34	0	0	0	-86	1,970
Distillate Fuel Oil	0	19,656	436	3,113	0	5,590	0	0	0	28,795	27,067
Residual Fuel Oil	0	1,826	241	-394	0	-366	0	0	0	1,307	3,943
Naphtha and Other Oils for Petro. Feed.	0	866	6	-1	0	5	0	0	13	862	169
Special Naphthas	0	478	901	43	0	156	0	0	1	1,577	503
Lubricants	0	651	14	144	0	217	0	0	50	976	1,873
Waxes	0	26	8	22	0	0	0	0	1	55	48
Petroleum Coke	0	3,379	0	145	0	0	0	0	208	3,316	1,170
Asphalt and Road Oil	0	3,196	0	615	0	192	0	0	1	4,002	11,575
Still Gas	0	3,730	0	0	0	0	0	0	0	3,730	0
Miscellaneous Products	13	248	55	-75	0	-73	0	0	2	167	338
Total	**42,774**	**96,058**	**25,749**	**3,080**	**33,061**	**25,290**	**5**	**92,327**	**1,428**	**132,251**	**258,411**

---

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 8. PAD District III, Supply and Disposition of Crude Oil and Petroleum Products, May 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 129,304	0	61,327	-13,304	-14,627	11,502	23	174,156	0	23	571,297
Natural Gas Liquids and LRGs	35,132	6,826	700	-3,722	0	-555	0	7,414	648	30,319	70,133
Liquefied Petroleum Gases	29,003	6,826	667	-3,126	0	-621	0	3,855	648	28,245	64,184
Pentanes Plus	6,129	0	33	-596	0	66	0	3,559	0	2,073	5,949
Other Liquids	552	0	4,410	-1,979	0	-1,251	0	10,644	0	-8,912	77,530
Other Hydrocarbons and Alcohol	552	0	0	-5	0	0	0	547	0	0	101
Unfinished Oils	0	0	3,930	-1,604	0	-1,251	0	8,098	0	-7,023	59,098
Motor Gasoline Blending Components	0	0	480	-287	0	0	0	2,086	0	-1,893	18,134
Aviation Gasoline Blending Components	0	0	0	-83	0	0	0	-87	0	4	197
Finished Petroleum Products	95	193,301	5,715	1,101	0	-95,438	0	0	7,958	96,815	120,171
Finished Motor Gasoline	11	93,293	714	-161	0	-60,168	0	0	1	33,689	54,845
Finished Leaded Motor Gasoline	11	36,704	714	883	0	-24,058	0	0	1	14,254	25,318
Finished Unleaded Motor Gasoline	0	56,589	0	-1,044	0	-36,110	0	0	0	19,435	29,527
Finished Aviation Gasoline	0	466	0	77	0	-406	0	0	0	137	810
Naphtha-Type Jet Fuel	0	2,779	361	83	0	-752	0	0	0	2,471	2,113
Kerosene-Type Jet Fuel	0	14,214	0	64	0	-11,146	0	0	(s)	3,132	11,563
Kerosene	1	2,022	0	-314	0	-96	0	0	0	1,613	2,188
Distillate Fuel Oil	41	36,689	1	-617	0	-19,807	0	0	193	16,115	23,632
Residual Fuel Oil	0	10,011	2,871	863	0	-931	0	0	2,580	10,233	10,056
Naphtha and Other Oils for Petro. Feed.	0	10,187	675	271	0	-10	0	0	577	10,546	2,819
Special Naphthas	0	1,051	750	282	0	-469	0	0	25	1,589	1,393
Lubricants	0	3,326	(s)	-88	0	-1,183	0	0	565	1,490	4,721
Waxes	0	247	52	47	0	-6	0	0	32	308	363
Petroleum Coke	0	6,062	0	549	0	0	0	0	3,970	2,641	1,177
Asphalt and Road Oil	0	3,488	12	-11	0	-358	0	0	(s)	3,131	3,404
Still Gas	0	8,358	0	0	0	0	0	0	0	8,358	0
Miscellaneous Products	42	1,108	280	56	0	-106	0	0	17	1,363	1,087
Total	165,083	200,127	72,152	-17,904	-14,627	-85,742	23	192,214	8,607	118,245	839,131

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 9. PAD District IV, Supply and Disposition of Crude Oil and Petroleum Products, May 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	**E 17,580**	**0**	**1,217**	**134**	**-4,773**	**0**	**0**	**14,150**	**0**	**8**	**13,984**
Natural Gas Liquids and LRGs	**2,647**	**184**	**463**	**28**	**0**	**-1,579**	**0**	**446**	**0**	**1,297**	**1,220**
Liquefied Petroleum Gases	1,802	184	304	51	0	-1,308	0	339	0	694	965
Pentanes Plus	845	0	159	-23	0	-271	0	107	0	603	255
Other Liquids	**6**	**0**	**0**	**137**	**0**	**0**	**0**	**99**	**0**	**44**	**5,254**
Other Hydrocarbons and Alcohol	6	0	0	0	0	0	0	6	0	0	0
Unfinished Oils	0	0	0	108	0	0	0	5	0	103	2,728
Motor Gasoline Blending Components	0	0	0	29	0	0	0	88	0	-59	2,526
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	**9**	**14,682**	**209**	**-186**	**0**	**-114**	**0**	**0**	**5**	**14,595**	**14,579**
Finished Motor Gasoline	4	7,541	75	-114	0	-31	0	0	0	7,475	6,321
Finished Leaded Motor Gasoline	4	4,393	70	-51	0	-145	0	0	0	4,271	3,997
Finished Unleaded Motor Gasoline	0	3,148	5	-63	0	114	0	0	0	3,204	2,324
Finished Aviation Gasoline	0	36	0	-4	0	13	0	0	0	45	64
Naphtha-Type Jet Fuel	0	410	0	79	0	-148	0	0	0	341	288
Kerosene-Type Jet Fuel	0	758	0	29	0	346	0	0	0	1,133	833
Kerosene	0	2	0	-14	0	0	0	0	0	-12	39
Distillate Fuel Oil	0	3,983	128	-111	0	-294	0	0	0	3,706	3,413
Residual Fuel Oil	0	335	5	-35	0	0	0	0	0	305	551
Naphtha and Other Oils for Petro. Feed	0	0	0	0	0	0	0	0	0	0	3
Special Naphthas	0	2	(s)	1	0	0	0	0	0	3	8
Lubricants	0	43	(s)	-12	0	0	0	0	3	28	74
Waxes	0	16	0	0	0	0	0	0	0	16	0
Petroleum Coke	0	264	0	-2	0	0	0	0	2	260	168
Asphalt and Road Oil	0	784	0	-2	0	0	0	0	(s)	782	2,802
Still Gas	0	477	0	0	0	0	0	0	0	477	0
Miscellaneous Products	5	31	1	-1	0	0	0	0	0	36	15
Total	**20,242**	**14,866**	**1,890**	**113**	**-4,773**	**-1,693**	**0**	**14,695**	**5**	**15,945**	**35,037**

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 10. PAD District V, Supply and Disposition of Crude Oil and Petroleum Products, May 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 90,164	0	10,964	-3,602	-92	-18,178	27	71,166	6,185	1,878	82,971
Natural Gas Liquids and LRGs	997	1,458	417	-261	0	0	0	831	140	1,640	1,633
Liquefied Petroleum Gases	567	1,458	417	-250	0	0	0	609	140	1,443	1,573
Pentanes Plus	430	0	0	-11	0	0	0	222	0	197	60
Other Liquids	538	0	2,448	-1,642	0	0	0	1,438	0	-94	36,129
Other Hydrocarbons and Alcohol	538	0	0	2	0	0	0	540	0	0	3
Unfinished Oils	0	0	1,300	-449	0	0	0	1,926	0	-1,075	27,318
Motor Gasoline Blending Components	0	0	1,148	-1,213	0	0	0	-1,046	0	981	8,779
Aviation Gasoline Blending Components	0	0	0	18	0	0	0	18	0	0	29
Finished Petroleum Products	0	76,427	1,679	-761	0	3,292	0	0	6,873	73,764	58,006
Finished Motor Gasoline	0	32,934	547	-1,839	0	1,995	0	0	2	33,635	22,727
Finished Leaded Motor Gasoline	0	13,258	166	-1,086	0	1,066	0	0	2	13,402	11,093
Finished Unleaded Motor Gasoline	0	19,676	381	-753	0	929	0	0	0	20,233	11,634
Finished Aviation Gasoline	0	225	7	80	0	0	0	0	0	312	490
Naphtha-Type Jet Fuel	0	1,459	0	151	0	316	0	0	0	1,926	1,733
Kerosene-Type Jet Fuel	0	7,386	35	118	0	280	0	0	22	7,797	5,716
Kerosene	0	107	0	53	0	0	0	0	(s)	160	243
Distillate Fuel Oil	0	12,745	153	-7	0	606	0	0	1,301	12,197	11,515
Residual Fuel Oil	0	10,453	388	1,030	0	0	0	0	3,621	8,250	8,647
Naphtha and Other Oils for Petro. Feed.	0	981	0	-36	0	0	0	0	15	930	649
Special Naphthas	0	39	522	83	0	0	0	0	1	644	217
Lubricants	0	313	23	-7	0	95	0	0	59	365	1,286
Waxes	0	70	2	7	0	0	0	0	4	74	48
Petroleum Coke	0	3,367	0	-144	0	0	0	0	1,844	1,379	1,841
Asphalt and Road Oil	0	2,247	0	-271	0	0	0	0	1	1,975	2,565
Still Gas	0	3,957	0	0	0	0	0	0	0	3,957	0
Miscellaneous Products	0	144	1	21	0	0	0	0	3	163	329
Total	91,699	77,885	15,508	-6,266	-92	-14,886	27	73,435	13,198	77,188	178,739

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

and State, for the Most Currently Available Month,[1] March 1984
(Thousand Barrels)

PAD District and State	Production	
	Total	Daily Average
PAD District I		
Florida	1,251	40
New York	E 71	E 2
Pennsylvania	E 363	E 12
Virginia	E 3	E 0
West Virginia	333	11
Adjustment [2]	230	7
Total PAD District I	E 2,251	E 73
PAD District II		
Illinois	2,382	77
Indiana	581	19
Kansas	5,918	191
Kentucky	672	22
Michigan	2,111	68
Missouri	E 16	E 1
Nebraska	549	18
North Dakota	4,457	144
Ohio	E 1,237	E 40
Oklahoma	13,633	440
South Dakota	101	3
Tennessee	81	3
Adjustment [2]	719	23
Total PAD District II	E 32,457	E 1,047
PAD District III		
Alabama	1,590	51
Arkansas	E 1,559	E 50
Louisiana		
Gulf Coast	E 39,740	E 1,282
Rest of State	2,842	92
Total Louisiana	E 42,582	E 1,374
Mississippi	2,841	92
New Mexico		
Northwestern	603	19
Southeastern	6,106	197
Total New Mexico	6,709	216
Texas		
TRRC District 01	2,200	71
TRRC District 02	3,331	107
TRRC District 03	E 10,299	E 332
TRRC District 04	2,502	81
TRRC District 05	692	22
TRRC District 06, excluding East Texas	4,274	138
TRRC District 07B	3,052	98
TRRC District 07C	3,090	100
TRRC District 08	19,732	637
TRRC District 08A	18,629	601
TRRC District 09	3,413	110
TRRC District 10	1,982	64
East Texas	4,268	138
Total Texas	E 77,464	E 2,499
Adjustment [2]	–2,849	–92
Total PAD District III	E 129,896	E 4,190
PAD District IV		
Colorado	E 2,343	E 76
Montana	2,495	80
Utah	E 2,393	E 77
Wyoming	9,516	307
Adjustment [2]	421	14
Total PAD District IV	E 17,168	E 554
PAD District V		
Alaska		
South Alaska	1,988	64
North Slope	46,674	1,506
Adjustment for Alaska[2]	5,278	170
Total Alaska	53,940	1,740
Arizona	18	1
California		
Central Coastal	6,506	210
East Central	21,299	687
North	16	1
South	6,730	217
Total California	34,551	1,115
Nevada	E 106	E 3
Adjustment for Arizona, California, and Nevada[2]	–135	–4
Total PAD District V	E 88,480	E 2,854
United States Total	E 270,252	E 8,718

See footnotes at end of table.

---

[1] Includes the following offshore production (thousand barrels):
Alaska: State - 1,744;
California: Federal - 2,604, State - 3,179;
Louisiana: Federal - E 26,791, State - 2,188;
Texas: Federal - E1,908, State- 158;
U.S. Total - E 38,572

[2] These adjustments are used to reconcile the national and PADD level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PADD level figures published in a previous issue. Final data at the State, PAD District and national levels will be published without adjustments in the Petroleum Supply Annual.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

– Data not available.

E = Estimated.

Table 12. Natural Gas Processing Plant Production of Petroleum Products by PAD District,[1] May 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Natural Gas Liquids	347	425	772	3	1,753	512	7,913	10,181	19,750	3,338	7,394	656	3,994	35,132	2,647	997	49,729
Pentanes Plus	31	47	78	1	228	129	1,087	1,445	3,537	349	1,303	192	748	6,129	845	430	8,927
Liquefied Petroleum Gases	316	378	694	2	1,525	383	6,826	8,736	16,213	2,989	6,091	464	3,246	29,003	1,802	567	40,802
Ethane	92	122	214	0	631	4	2,991	3,626	6,466	1,068	2,734	66	989	11,323	213	3	15,379
Propane	138	180	318	1	542	217	2,562	3,322	6,173	1,256	2,057	203	1,352	11,041	1,012	334	16,027
Normal Butane	66	53	119	1	194	137	841	1,173	2,558	395	691	143	617	4,404	453	164	6,313
Isobutane	20	23	43	0	158	25	432	615	1,016	270	609	52	288	2,235	124	66	3,083
Finished Petroleum Products	68	0	68	0	2	0	11	13	26	50	3	8	8	95	9	0	185
Finished Motor Gasoline	68	0	68	0	0	0	0	0	8	0	0	0	3	11	4	0	83
Finished Leaded Motor Gasoline	42	0	42	0	0	0	0	0	8	0	0	0	3	11	4	0	57
Finished Unleaded Motor Gasoline	26	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1
Distillate Fuel Oil	0	0	0	0	0	0	0	0	0	41	0	0	0	41	0	0	41
Special Naphthas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	2	0	11	13	17	9	3	8	5	42	5	0	60
Total Production	415	425	840	3	1,755	512	7,924	10,194	19,776	3,388	7,397	664	4,002	35,227	2,656	997	49,914

[1] Production represents quantity of natural gas processing plant output less input to fractionating facilities.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 13. Refinery Input of Crude Oil and Petroleum Products by PAD District, May 1984
(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil (including lease condensate)	31,997	3,028	35,025	1,721	57,022	7,703	18,595	85,041	15,443	84,022	66,559	5,785	2,347	174,156	14,150	71,166	379,538
Pentanes Plus	42	0	42	0	676	64	688	1,428	1,002	1,880	481	96	100	3,559	107	222	5,358
Liquefied Petroleum Gases	201	39	240	115	1,639	180	599	2,533	486	1,232	1,962	131	44	3,855	339	609	7,576
Ethane	0	0	0	0	1	0	0	1	0	0	70	0	0	70	0	0	71
Propane	0	0	0	0	47	0	0	47	0	1	36	0	0	37	0	0	84
Normal Butane	89	39	128	44	696	118	110	968	156	661	1,024	30	14	1,885	255	493	3,729
Isobutane	112	0	112	71	895	62	489	1,517	330	570	832	101	30	1,863	84	116	3,692
Other Liquids																	
Other Hydrocarbons and Alcohol	308	0	308	0	225	0	6	231	0	299	246	0	2	547	6	540	1,632
Unfinished Oil (net)	2,527	-34	2,493	14	1,867	-17	993	2,857	472	8,231	-857	134	118	8,098	5	1,926	15,379
Motor Gasoline Blending Components (net)	333	21	354	-9	-362	243	303	175	115	27	1,932	-2	14	2,086	88	-1,046	1,657
Aviation Gasoline Blending Components (net)	0	0	0	0	33	0	29	62	0	11	-98	0	0	-87	0	18	-7
Total Input to Refineries	35,408	3,054	38,462	1,841	61,100	8,173	21,213	92,327	17,518	95,702	70,225	6,144	2,625	192,214	14,695	73,435	411,133
Crude Oil Distillation																	
Gross Input (daily average)	1,086	98	1,183	56	1,852	257	609	2,774	498	2,756	2,164	188	75	5,681	458	2,318	12,414
Operable Capacity (daily average)	1,404	174	1,578	66	2,329	304	787	3,486	604	3,802	2,539	294	109	7,348	558	3,106	16,076
Operating Ratio (percent)[1]	77.3	56.0	75.0	84.1	79.5	84.5	77.4	79.6	82.4	72.5	85.3	64.0	68.3	77.3	82.2	74.6	77.2
Crude Oil Qualities																	
Sulfur Content, Weighted Average (percent)	1.00	.38	.95	.55	.83	1.78	.58	.85	.60	.97	.92	1.49	.28	.93	.87	1.02	.93
API Gravity, Weighted Average	31.07	41.20	31.94	36.55	36.35	30.22	37.62	36.08	37.56	35.03	33.52	32.58	39.60	34.66	35.62	25.97	33.12
Operable Capacity (daily average)	1,404	174	1,578	66	2,329	304	787	3,486	604	3,802	2,539	294	109	7,348	558	3,106	16,076
Operating	1,083	174	1,257	66	2,154	301	642	3,163	589	3,532	2,362	235	107	6,824	530	2,883	14,657
Idle	321	(s)	321	0	175	3	145	323	15	271	176	59	2	523	28	223	1,419

[1] Represents gross input divided by operable capacity.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 14. Refinery Production of Petroleum Products by PAD District, May 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	1,246	29	1,275	40	1,844	197	343	2,424	222	2,892	3,529	78	105	6,826	184	1,458	12,167
For Petrochemical Feedstock Use	468	0	468	0	183	1	50	234	40	1,513	2,053	0	0	3,606	9	154	4,471
For Other Uses	778	29	807	40	1,661	196	293	2,190	182	1,379	1,476	78	105	3,220	175	1,304	7,696
Ethane	31	0	31	0	0	5	0	5	0	722	15	0	0	737	0	0	773
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	247	1	0	0	248	0	0	248
For Other Uses	31	0	31	0	0	5	0	5	0	475	14	0	0	489	0	0	525
Propane	984	29	1,013	40	1,815	191	480	2,526	192	2,298	1,444	65	64	4,063	158	994	8,754
For Petrochemical Feedstock Use	382	0	382	0	161	0	50	211	40	1,039	228	0	0	1,307	0	140	2,040
For Other Uses	602	29	631	40	1,654	191	430	2,315	152	1,259	1,216	65	64	2,756	158	854	6,714
Normal Butane	231	0	231	0	7	1	-137	-129	30	-82	2,070	13	41	2,072	17	468	2,659
For Petrochemical Feedstock Use	86	0	86	0	0	1	0	1	0	273	1,824	0	0	2,097	0	18	2,202
For Other Uses	145	0	145	0	7	0	-137	-130	30	-355	246	13	41	-25	17	450	457
Isobutane for Petro. Feed. Use	0	0	0	0	22	0	0	22	0	-46	0	0	0	-46	9	-4	-19
Finished Motor Gasoline	17,063	1,229	18,292	1,109	36,275	4,443	12,167	53,994	9,168	46,109	34,920	1,934	1,162	93,293	7,541	32,934	206,054
Finished Leaded Motor Gasoline	5,464	569	6,033	516	14,798	2,280	6,334	23,928	4,681	17,346	13,223	847	607	36,704	4,393	13,258	84,316
Finished Unleaded Motor Gasoline	11,599	660	12,259	593	21,477	2,163	5,833	30,066	4,487	28,763	21,697	1,087	555	56,589	3,148	19,676	121,738
Finished Aviation Gasoline	0	0	0	0	78	0	10	88	148	176	142	0	0	466	36	225	815
Naphtha-Type Jet Fuel	743	42	785	31	598	91	338	1,058	1,023	744	463	143	406	2,779	410	1,459	6,491
Kerosene-Type Jet Fuel	870	0	870	-7	3,269	400	411	4,073	886	6,255	6,958	5	110	14,214	758	7,386	27,301
Kerosene	71	-27	44	66	189	0	110	365	26	954	1,025	-2	19	2,022	2	107	2,540
Distillate Fuel Oil	7,616	908	8,524	410	11,680	1,953	5,613	19,656	4,090	17,101	12,993	1,838	667	36,689	3,983	12,745	81,597
Residual Fuel Oil	2,988	85	3,073	78	1,279	189	280	1,826	691	6,306	2,765	238	11	10,011	335	10,453	25,698
Naphtha < 400 Deg. For Petro. Feed. Use	275	0	275	0	695	0	51	746	87	2,288	4	24	0	2,403	0	382	3,806
Other Oils > 400 Deg. For Petro. Feed. Use	5	0	5	0	120	0	0	120	68	5,050	2,666	0	0	7,784	0	599	8,508
Special Naphthas	8	53	61	0	242	0	236	478	99	784	63	105	0	1,051	2	39	1,631
Lubricants	159	355	514	0	505	0	146	651	0	2,124	805	397	0	3,326	43	313	4,847
Waxes	0	69	69	0	11	0	15	26	8	77	107	55	0	247	16	70	428
Petroleum Coke	957	18	975	27	2,344	488	520	3,379	304	2,659	2,970	117	12	6,062	264	3,367	14,047
Marketable	285	0	285	0	1,228	381	306	1,915	60	1,244	2,080	93	0	3,477	119	2,549	8,345
Catalyst	672	18	690	27	1,116	107	214	1,464	244	1,415	890	24	12	2,585	145	818	5,702
Asphalt and Road Oil	3,270	96	3,366	102	1,997	430	667	3,196	654	489	1,186	1,050	109	3,488	784	2,247	13,081
Still Gas	1,429	136	1,565	55	2,631	310	734	3,730	408	4,831	2,863	189	67	8,358	477	3,957	18,087
For Petrochemical Feedstock Use	182	0	182	0	2	0	0	2	4	495	140	0	0	639	1	139	963
For Other Uses	1,247	136	1,383	55	2,629	310	734	3,728	404	4,336	2,723	189	67	7,719	476	3,818	17,124
Miscellaneous Products	354	55	409	3	148	33	64	248	10	751	303	44	0	1,108	31	144	1,940
Fuel Use	68	17	85	0	0	0	3	3	0	-12	207	0	0	195	11	12	306
Non-Fuel Use	286	38	324	3	148	33	61	245	10	763	96	44	0	913	20	132	1,634
Total Production	37,054	3,048	40,102	1,914	63,905	8,534	21,705	96,058	17,892	99,590	73,762	6,215	2,668	200,127	14,866	77,885	429,038
Processing Gain(-) or Loss(+)[1]	-1,646	6	-1,640	-73	-2,805	-361	-492	-3,731	-374	-3,888	-3,537	-71	-43	-7,913	-171	-4,450	-17,905

---

[1] Represents the arithmetic difference between input and output.

Note: See Explanatory Note 2.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 15. Percent Refinery Yield of Petroleum Products by PAD District,[1] May 1984

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Finished Motor Gasoline[2]	46.9	39.0	46.2	57.8	57.9	51.5	54.0	56.5	47.5	46.3	46.1	28.9	40.6	45.7	49.5	44.6	48.1
Finished Aviation Gasoline[3]	.0	.0	.0	.0	.1	.0	–.1	.0	.9	.2	.4	.0	.0	.3	.3	.3	.2
Liquefied Refinery Gases	3.6	1.0	3.4	2.3	3.1	2.6	1.8	2.8	1.4	3.1	5.4	1.3	4.3	3.7	1.3	2.0	3.1
Naphtha-Type Jet Fuel	2.2	1.4	2.1	1.8	1.0	1.2	1.7	1.2	6.4	.8	.7	2.4	16.5	1.5	2.9	2.0	1.6
Kerosene-Type Jet Fuel	2.5	0	2.3	–.4	5.6	5.2	2.1	4.6	5.6	6.8	10.6	.1	4.5	7.8	5.4	10.1	6.9
Kerosene	.2	–.9	.1	3.8	.3	.0	.6	.4	.2	1.0	1.6	.0	.8	1.1	.0	.1	.6
Distillate Fuel Oil	22.1	30.3	22.7	23.6	19.8	25.4	28.7	22.4	25.7	18.5	19.8	31.1	27.1	20.1	28.1	17.4	20.7
Residual Fuel Oil	8.7	2.8	8.2	4.5	2.2	2.5	1.4	2.1	4.3	6.8	4.2	4.0	.4	5.5	2.4	14.3	6.5
Naphtha < 400 Deg. F. Petro. Feed. Use	.8	0	.7	0	1.2	0	.3	.8	.5	2.5	.0	.4	0	1.3	0	.5	1.0
Other Oils > 400 Deg. F. Petro. Feed. Use	.0	0	.0	0	.2	0	0	.1	.4	5.5	4.1	0	0	4.3	.0	.8	2.2
Special Naphthas	.0	1.8	.2	0	.4	0	1.2	.5	.6	.8	.1	1.8	0	.6	.0	.1	.4
Lubricants	.5	11.9	1.4	0	.9	0	.7	.7	.0	2.3	1.2	6.7	0	1.8	.3	.4	1.2
Waxes	.0	2.3	.2	0	.0	0	.1	.0	.1	.1	.2	.9	0	.1	.1	.1	.1
Petroleum Coke	2.8	.6	2.6	1.6	4.0	6.3	2.7	3.8	1.9	2.9	4.5	2.0	.5	3.3	1.9	4.6	3.6
Asphalt and Road Oil	9.5	3.2	9.0	5.9	3.4	5.6	3.4	3.6	4.1	.5	1.8	17.7	4.4	1.9	5.5	3.1	3.3
Still Gas	4.1	4.5	4.2	3.2	4.5	4.0	3.7	4.2	2.6	5.2	4.4	3.2	2.7	4.6	3.4	5.4	4.6
Miscellaneous Products	1.0	1.8	1.1	.2	.3	.4	.3	.3	.1	.8	.5	.7	0	.6	.2	.2	.5
Processing Gain(-) or Loss(+)[4]	–4.8	.2	–4.4	–4.2	–4.8	–4.7	–2.5	–4.2	–2.3	–4.2	–5.4	–1.2	–1.7	–4.3	–1.2	–6.1	–4.5

---

[1] Based on crude oil input and net reruns of unfinished oils.

[2] Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

[3] Based on finished aviation gasoline output plus net output of aviation gasoline blending components.

[4] Represents the difference between Input and Production.

Note: Total may not equal sum of components due to independent rounding.

Note: See Explanatory 2.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 16. Imports of Crude Oil and Petroleum Products by PAD District, May 1984 (Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) 1 2	**29,520**	**18,706**	**61,327**	**1,217**	**10,964**	**121,733**
Natural Gas Liquids	**2,525**	**4,715**	**700**	**463**	**417**	**8,821**
Pentanes Plus	2,092	0	33	159	0	2,285
Liquefied Petroleum Gases	433	4,715	667	304	417	6,536
Ethane	1	3,115	0	0	0	3,116
Propane	189	1,075	271	150	44	1,729
Normal Butane	146	315	251	92	224	1,028
Isobutane	97	210	145	61	149	663
Other Liquids 1	**4,269**	**496**	**4,410**	**0**	**2,448**	**11,623**
Unfinished Oils 1	2,243	496	3,930	0	1,300	7,968
Motor Gasoline Blending Components	2,027	0	480	0	1,148	3,655
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	**31,786**	**1,833**	**5,715**	**209**	**1,679**	**41,221**
Finished Motor Gasoline	8,705	170	714	75	547	10,212
Finished Leaded Motor Gasoline	4,047	97	714	70	166	5,094
Finished Unleaded Motor Gasoline	4,659	74	0	5	381	5,119
Finished Aviation Gasoline	33	0	0	0	7	41
Naphtha-Type Jet Fuel	435	0	361	0	0	796
Kerosene-Type Jet Fuel	865	0	0	0	35	899
Bonded Aircraft Fuel	0	0	0	0	0	0
Other	865	0	0	0	35	899
Kerosene	39	0	0	0	0	39
Distillate Fuel Oil	7,104	436	1	128	153	7,822
Bonded Ships Bunkers	0	0	0	0	0	0
Other	7,104	436	1	128	153	7,822
Residual Fuel Oil	13,673	241	2,871	5	388	17,178
Bonded Ships Bunkers	0	0	0	0	0	0
Other	13,673	241	2,871	5	388	17,178
Naphtha < 400 Deg. for Petro. Feed. Use	18	6	675	0	0	698
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	641	901	750	(s)	522	2,815
Lubricants	185	14	(s)	(s)	23	222
Waxes	9	8	52	0	2	70
Asphalt and Road Oil	71	0	12	0	0	83
Miscellaneous Products	8	55	280	1	1	345
Total Imports	**68,100**	**25,749**	**72,152**	**1,890**	**15,508**	**183,398**

1 Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
2 Includes crude oil imported for storage in the Strategic Petroleum Reserve.
(s) = Less than 500 barrels.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 17. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January - May 1984
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) [1] [2]	**126,466**	**81,477**	**268,007**	**4,995**	**29,902**	**510,846**
Natural Gas Liquids	6,906	**24,711**	3,142	**2,798**	**2,924**	**40,481**
Pentanes plus	4,843	0	689	553	510	6,595
Liquefied Petroleum Gases	2,063	24,711	2,453	2,244	2,414	33,885
Ethane	1	14,276	0	0	0	14,277
Propane	1,254	6,663	1,121	1,166	431	10,635
Normal Butane	485	2,263	847	647	1,190	5,432
Isobutane	323	1,508	486	431	793	3,542
Other Liquids [1]	17,562	1,938	22,801	0	6,888	49,189
Unfinished Oils [1]	11,409	1,863	21,387	0	3,518	38,177
Motor Gasoline Blending Components	**6,153**	**75**	**1,414**	**0**	**3,370**	**11,012**
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	196,129	4,457	25,739	936	7,423	234,685
Finished Motor Gasoline	38,852	585	3,350	293	2,984	46,063
Finished Leaded Motor Gasoline	**19,886**	**350**	**2,585**	**276**	**1,047**	**24,143**
Finished Unleaded Motor Gasoline	18,966	235	765	17	1,937	21,919
Finished Aviation Gasoline	36	0	0	2	7	45
Naphtha-Type Jet Fuel	1,415	0	1,636	0	0	3,051
Kerosene-Type Jet Fuel	7,722	0	0	0	274	7,996
Bonded Aircraft Fuel	0	0	0	0	0	0
Other	7,722	0	0	0	274	7,996
Kerosene	1,178	0	6	0	(s)	1,184
Distillate Fuel Oil	36,470	945	954	551	727	39,647
Bonded Ships Bunkers	0	0	0	0	0	0
Other	36,470	945	954	551	727	39,647
Residual Fuel Oil	106,690	1,385	10,439	86	2,292	120,892
Bonded Ships Bunkers	0	0	0	0	0	0
Other	106,690	1,385	10,439	86	2,292	120,892
Naphtha < 400 Deg. for Petro. Feed. Use	689	87	3,260	0	0	4,036
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	1,555	1,085	4,401	2	752	7,795
Lubricants	1,026	56	120	1	346	1,548
Waxes	52	25	129	0	12	218
Asphalt and Road Oil	105	16	12	0	3	136
Miscellaneous Products	342	274	1,430	2	25	2,073
Total Imports	347,063	112,582	319,689	8,729	47,137	835,201

---

[1] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[2] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, May 1984 (Thousand Barrels)

Source	Crude Oil 1	LPG	Unfin-ished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
	All PAD Districts													
Arab OPEC														
Algeria	9,805	0	253	0	0	0	0	1,074	1,590	224	1,188	4,329	14,134	456
Kuwait	2,309	0	0	0	0	0	0	0	983	0	0	983	3,292	106
Saudi Arabia	9,818	0	379	0	0	0	0	0	0	0	0	379	10,197	329
United Arab Emirates	6,154	0	269	261	0	0	0	0	541	0	223	1,294	7,447	240
Subtotal Arab OPEC	28,085	0	901	261	0	0	0	1,074	3,114	224	1,411	6,985	35,070	1,131
Other OPEC														
Ecuador	733	0	0	0	0	0	0	0	296	0	0	296	1,029	33
Gabon	3,177	0	0	0	0	0	0	0	0	0	0	0	3,177	102
Indonesia	13,109	450	135	0	240	30	0	66	594	232	24	1,771	14,880	480
Nigeria	8,533	0	416	0	0	0	0	0	0	0	0	416	8,949	289
Venezuela	10,888	0	905	367	2,003	492	0	2,148	2,420	0	39	8,375	19,263	621
Subtotal Other OPEC	36,441	450	1,456	367	2,242	522	0	2,213	3,310	232	63	10,858	47,299	1,526
Other														
Angola	1,960	0	0	0	0	0	0	0	0	0	0	0	1,960	63
Australia	926	0	0	0	0	0	0	0	197	0	0	197	1,123	36
Bahamas	0	0	218	0	0	2	0	0	462	0	268	950	950	31
Brazil	0	0	0	0	466	0	0	0	587	37	0	1,091	1,091	35
Canada	11,694	5,765	400	0	651	0	3	1,151	987	1,033	468	10,458	22,151	715
Congo	1,052	0	0	0	0	0	0	0	0	0	0	0	1,052	34
Egypt	385	0	0	0	0	0	0	0	0	0	0	0	385	12
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Liberia	0	0	0	0	0	0	0	0	129	0	0	129	129	4
Malaysia	0	0	0	0	6	0	0	2	0	0	0	8	8	(s)
Mexico	19,152	196	467	834	219	0	0	1	7	0	62	1,788	20,939	675
Netherlands	0	0	0	302	474	0	0	236	0	40	153	1,204	1,204	39
Netherlands Antilles	0	28	577	207	1,639	228	0	1,001	2,278	0	0	5,957	5,957	192
Norway	3,235	0	0	0	0	0	0	236	0	0	0	236	3,472	112
Oman	0	0	0	0	0	0	0	0	272	0	0	272	272	9
People's Republic of China	0	0	0	876	0	0	0	0	0	175	0	1,051	1,051	34
Peru	(s)	0	0	0	0	0	0	0	779	0	0	779	780	25
Puerto Rico	0	0	59	0	482	0	0	0	0	476	174	1,191	1,191	38
Romania	0	0	0	474	0	0	0	0	0	183	763	1,420	1,420	46
Spain	0	0	0	0	283	190	0	0	6	0	18	497	497	16
Trinidad and Tobago	1,756	0	0	0	0	0	0	0	0	0	16	16	1,773	57
United Kingdom	11,753	96	266	0	676	171	0	(s)	0	(s)	5	1,215	12,967	418
Virgin Islands	0	0	2,249	0	2,027	577	36	1,605	3,857	63	0	10,413	10,413	336
Zaire	1,064	0	0	0	0	0	0	0	0	0	0	0	1,064	34
Other Western Hemisphere	140	0	404	0	0	0	0	0	716	34	58	1,212	1,352	44
Other Eastern Hemisphere	4,090	(s)	970	333	1,047	4	0	303	477	318	284	3,737	7,827	252
Subtotal Other	57,207	6,086	5,611	3,026	7,970	1,173	39	4,535	10,754	2,359	2,269	43,822	101,029	3,259
Total Imports	121,733	6,536	7,968	3,655	10,212	1,696	39	7,822	17,178	2,815	3,744	61,665	183,398	5,916
Arab OPEC														
Algeria	2,576	0	0	0	0	0	0	1,074	1,590	0	743	3,407	5,982	193
Saudi Arabia	2,105	0	379	0	0	0	0	0	0	0	0	379	2,484	80
United Arab Emirates	436	0	0	261	0	0	0	0	0	0	223	484	920	30
Subtotal Arab OPEC	5,117	0	379	261	0	0	0	1,074	1,590	0				

Table 18. Imports of Crude Oil and Petroleum Products by Source
(Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD District I														
Other OPEC														
Ecuador	0	0	0	0	0	0	0	0	296	0	0	296	296	10
Gabon	886	0	0	0	0	0	0	0	0	0	0	0	886	29
Indonesia	2,572	0	0	0	0	0	0	0	0	0	0	0	2,572	83
Nigeria	1,480	0	0	0	0	0	0	0	0	0	0	0	1,480	48
Venezuela	2,955	0	0	0	2,003	492	0	2,148	2,127	0	39	6,809	9,764	315
Subtotal Other OPEC	7,893	0	0	0	2,003	492	0	2,148	2,423	0	39	7,105	14,998	484
Other														
Angola	1,231	0	0	0	0	0	0	0	0	0	0	0	1,231	40
Australia	0	0	0	0	0	0	0	0	197	0	0	197	197	6
Bahamas	0	0	0	0	0	2	0	0	462	0	0	464	464	15
Brazil	0	0	0	0	226	0	0	0	587	0	0	814	814	26
Canada	1,290	336	3	0	234	0	3	555	741	21	218	2,111	3,401	110
Congo	567	0	0	0	0	0	0	0	0	0	0	0	567	18
Egypt	385	0	0	0	0	0	0	0	0	0	0	0	385	12
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Liberia	0	0	0	0	0	0	0	0	129	0	0	129	129	4
Mexico	3,714	0	0	834	0	0	0	0	0	0	33	867	4,582	148
Netherlands	0	0	0	190	474	0	0	236	0	0	(s)	900	900	29
Netherlands Antilles	0	0	577	207	1,384	228	0	1,001	2,086	0	0	5,483	5,483	177
Norway	2,733	0	0	0	0	0	0	236	0	0	0	236	2,969	96
Peru	(s)	0	0	0	0	0	0	0	779	0	0	779	780	25
Puerto Rico	0	0	59	0	482	0	0	0	0	199	174	914	914	29
Romania	0	0	0	252	0	0	0	0	0	183	763	1,198	1,198	39
Spain	0	0	0	0	283	0	0	0	6	0	(s)	289	289	9
Trinidad and Tobago	0	0	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom	5,619	96	0	0	676	0	0	0	0	(s)	5	777	6,396	206
Virgin Islands	0	0	988	0	2,027	577	36	1,605	3,596	0	0	8,829	8,829	285
Zaire	390	0	0	0	0	0	0	0	0	0	0	0	390	13
Other Western Hemisphere	0	0	236	0	0	0	0	0	716	0	0	952	952	31
Other Eastern Hemisphere	581	(s)	0	283	915	0	0	250	360	237	219	2,264	2,845	92
Subtotal Other	16,510	433	1,864	1,765	6,702	807	39	3,882	9,660	641	1,412	27,206	43,716	1,410
Total Imports	29,520	433	2,243	2,027	8,705	1,299	39	7,104	13,673	641	2,417	38,580	68,100	2,197
PAD District II														
Arab OPEC														
Algeria	1,662	0	0	0	0	0	0	0	0	0	0	0	1,662	54
Saudi Arabia	1,669	0	0	0	0	0	0	0	0	0	0	0	1,669	54
United Arab Emirates	556	0	0	0	0	0	0	0	0	0	0	0	556	18
Arab OPEC Subtotal Arab OPEC	3,887	0	0	0	0	0	0	0	0	0	0	0	3,887	125
Other OPEC														
Ecuador	373	0	0	0	0	0	0	0	0	0	0	0	373	12
Nigeria	1,472	0	0	0	0	0	0	0	0	0	0	0	1,472	47
Subtotal Other OPEC	1,845	0	0	0	0	0	0	0	0	0	0	0	1,845	60

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, May 1984 (Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
	PAD District II													
Other														
Bahamas	0	0	218	0	0	0	0	0	0	0	0	218	218	7
Canada	7,483	4,715	277	0	170	0	0	436	241	901	82	6,824	14,307	462
Congo	485	0	0	0	0	0	0	0	0	0	0	0	485	16
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	3,748	0	0	0	0	0	0	0	0	0	0	0	3,748	121
Trinidad and Tobago	851	0	0	0	0	0	0	0	0	0	0	0	851	27
United Kingdom	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Other Eastern Hemisphere	407	0	0	0	0	0	0	0	0	0	1	1	408	13
Subtotal Other	12,974	4,715	496	0	170	0	0	436	241	901	83	7,043	20,017	646
Total Imports	18,706	4,715	496	0	170	0	0	436	241	901	83	7,043	25,749	831
	PAD District III													
Arab OPEC														
Algeria	5,567	0	0	0	0	0	0	0	0	224	445	669	6,236	201
Kuwait	2,309	0	0	0	0	0	0	0	983	0	0	983	3,292	106
Saudi Arabia	6,044	0	0	0	0	0	0	0	0	0	0	0	6,044	195
United Arab Emirates	5,162	0	0	0	0	0	0	0	541	0	0	541	5,703	184
Subtotal Arab OPEC	19,082	0	0	0	0	0	0	0	1,524	224	445	2,193	21,275	686
Other OPEC														
Ecuador	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gabon	2,291	0	0	0	0	0	0	0	0	0	0	0	2,291	74
Indonesia	2,759	450	0	0	0	0	0	0	521	0	24	995	3,754	121
Nigeria	5,582	0	416	0	0	0	0	0	0	0	0	416	5,998	193
Venezuela	7,735	0	905	367	0	0	0	0	293	0	0	1,566	9,300	300
Subtotal Other OPEC	18,367	450	1,321	367	0	0	0	0	814	0	24	2,976	21,344	689
Other														
Angola	729	0	0	0	0	0	0	0	0	0	0	0	729	24
Australia	2	0	0	0	0	0	0	0	0	0	0	0	2	(s)
Bahamas	0	0	0	0	0	0	0	0	0	0	268	268	268	9
Brazil	0	0	0	0	240	0	0	0	0	37	0	277	277	9
Canada	(s)	0	0	0	0	0	0	0	0	75	0	75	75	2
Congo	0	0	0	0	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	11,689	189	467	0	219	0	0	1	0	0	29	905	12,594	406
Netherlands	0	0	0	112	0	0	0	0	0	40	152	304	304	10
Netherlands Antilles	0	28	0	0	255	0	0	0	0	0	0	283	283	9
Other														
Norway	503	0	0	0	0	0	0	0	0	0	0	0	503	16
Oman	0	0	0	0	0	0	0	0	272	0	0	272	272	9
Puerto Rico	0	0	0	0	0	0	0	0	0	277	0	277	277	9
Spain	0	0	0	0	0	190	0	0	0	0	18	208	208	7
Trinidad and Tobago	906	0	0	0	0	0	0	0	0	0	16	16	922	30
United Kingdom	6,134	0	266	0	0	171	0	(s)	0	0	0	437	6,571	212
Virgin Islands	0	0	1,261	0	0	0	0	0	261	63	0	1,584	1,584	51
Zaire	674	0	0	0	0	0	0	0	0	0	0	0	674	22

See footnotes at end of ta

Source	Crude Oil 1	LPG	Unfin-ished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
							PAD District III							
Other Western Hemisphere	140	0	167	0	0	0	0	0	0	34	58	259	399	13
Other Eastern Hemisphere	3,102	0	448	0	0	0	0	0	0	0	40	488	3,591	116
Subtotal Other	23,878	216	2,609	112	714	361	0	1	533	526	582	5,655	29,533	953
Total Imports	61,327	667	3,930	480	714	361	0	1	2,871	750	1,051	10,825	72,152	2,327
							PAD District IV							
Other														
Canada	1,217	304	0	0	75	0	0	128	5	(s)	160	673	1,890	61
Subtotal Other	1,217	304	0	0	75	0	0	128	5	(s)	160	673	1,890	61
Total Imports	1,217	304	0	0	75	0	0	128	5	(s)	160	673	1,890	61
							PAD District V							
Arab OPEC														
Algeria	0	0	253	0	0	0	0	0	0	0	0	253	253	8
Saudi Arabia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	0	269	0	0	0	0	0	0	0	0	269	269	9
Subtotal Arab OPEC	0	0	522	0	0	0	0	0	0	0	0	522	522	17
Other OPEC														
Ecuador	360	0	0	0	0	0	0	0	0	0	0	0	360	12
Indonesia	7,778	0	135	0	240	30	0	66	73	232	(s)	776	8,554	276
Venezuela	199	0	0	0	0	0	0	0	0	0	0	0	199	6
Subtotal Other OPEC	8,337	0	135	0	240	30	0	66	73	232	(s)	776	9,113	294
Other														
Australia	924	0	0	0	0	0	0	0	0	0	0	0	924	30
Canada	1,703	410	120	0	170	0	0	32	0	35	8	775	2,478	80
France	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malaysia	0	0	0	0	6	0	0	2	0	0	0	8	8	(s)
Mexico	0	7	0	0	0	0	0	(s)	7	0	1	15	15	(s)
Netherlands Antilles	0	0	0	0	0	0	0	0	192	0	0	192	192	6
Norway	0	0	0	0	0	0	0	0	0	0	0	0	0	0
People's Republic of China	0	0	0	876	0	0	0	0	0	175	0	1,051	1,051	34
Other														
Romania	0	0	0	222	0	0	0	0	0	0	0	222	222	7
United Kingdom	0	0	0	0	0	0	0	0	0	(s)	0	(s)	(s)	(s)
Other Eastern Hemisphere	0	(s)	523	51	132	4	0	53	117	81	23	983	983	32
Subtotal Other	2,627	417	642	1,148	308	4	0	88	315	290	32	3,246	5,873	189
Total Imports	10,964	417	1,300	1,148	547	35	0	153	388	522	33	4,544	15,508	500

1 Includes crude oil imported for storage in the Strategic Petroleum Reserve.

2 Includes aviation gasoline, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - May 1984 (Thousand Barrels)

Source	Crude Oil 1	LPG	Unfin-ished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
	All PAD Districts													
Arab OPEC														
Algeria	31,114	0	253	0	434	327	0	2,233	10,448	1,828	2,262	17,786	48,900	322
Iraq	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Kuwait	2,836	0	0	0	0	0	0	0	2,893	0	0	2,893	5,729	38
Saudi Arabia	50,815	338	901	0	0	0	0	0	1,013	0	(s)	2,253	53,068	349
United Arab Emirates	14,207	0	795	546	0	221	0	0	1,745	0	770	4,077	18,284	120
Subtotal Arab OPEC	98,973	338	1,950	546	434	548	0	2,233	16,100	1,828	3,032	27,008	125,981	829
Other OPEC														
Ecuador	7,967	0	0	0	0	0	0	0	982	0	0	982	8,949	59
Gabon	7,816	0	0	0	0	0	0	0	246	60	0	306	8,123	53
Indonesia	39,187	1,356	1,787	0	846	92	0	254	2,839	232	72	7,477	46,664	307
Iran	2,071	0	0	0	0	0	0	0	0	0	0	0	2,071	14
Nigeria	38,820	0	1,294	0	0	0	0	53	90	0	0	1,437	40,257	265
Venezuela	38,597	0	1,810	669	8,548	1,982	0	7,219	19,460	68	235	39,990	78,587	517
Subtotal Other OPEC	134,458	1,356	4,891	669	9,394	2,074	0	7,526	23,617	360	307	50,193	184,650	1,215
Other														
Angola	12,390	0	0	0	0	0	0	0	568	0	0	568	12,958	85
Australia	2,190	96	0	0	141	27	0	38	813	0	88	1,203	3,392	22
Bahamas	0	0	4,754	0	0	659	69	3,310	4,258	0	2,111	15,160	15,160	100
Bolivia	260	0	0	0	0	0	0	0	0	0	0	0	260	2
Brazil	2	0	0	0	3,380	0	0	0	3,184	165	23	6,753	6,754	44
Brunei	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	54,333	30,550	1,593	75	2,828	0	31	5,560	4,171	1,466	2,107	48,381	102,714	676
Congo	4,367	0	0	0	0	0	0	0	742	0	0	742	5,110	34
Egypt	1,058	0	0	0	0	0	0	0	0	0	0	0	1,058	7
France	0	(s)	(s)	0	0	0	(s)	0	0	(s)	11	11	11	(s)
Ghana	0	0	0	0	0	0	0	0	119	0	0	119	119	1
Liberia	0	0	0	0	0	0	0	0	1,749	0	0	1,749	1,749	12
Malaysia	0	0	125	0	61	7	0	7	54	0	0	254	254	2
Mexico	101,502	1,103	4,477	2,638	439	215	0	946	722	(s)	131	10,671	112,172	738
Netherlands	1,044	(s)	0	349	4,229	196	0	5,426	988	295	467	11,950	12,994	85
Netherlands Antilles	0	28	5,898	207	5,269	418	0	1,829	20,585	0	104	34,338	34,338	226
Norway	14,690	(s)	0	0	0	451	0	366	0	0	0	817	15,507	102
Oman	496	0	0	0	0	0	0	0	1,239	0	0	1,239	1,735	11
People's Republic of China	1,035	0	321	3,098	332	0	0	0	0	347	(s)	4,098	5,133	34
Peru	2	0	373	0	0	0	0	0	3,866	0	0	4,238	4,240	28
Puerto Rico	0	0	910	0	1,748	253	0	1,011	0	1,833	924	6,680	6,680	44
Romania	0	0	252	2,210	522	0	0	0	0	183	2,870	6,038	6,038	40
Spain	0	0	218	0	727	1,016	0	123	782	0	18	2,883	2,883	19
Trinidad and Tobago	10,429	0	13	0	0	0	0	0	829	7	16	865	11,294	74
Tunisia	2	0	0	0	0	0	0	0	0	0	0	0	2	(s)
United Kingdom	50,226	287	737	370	1,826	325	0	163	655	156	709	5,228	55,454	365
Virgin Islands	0	0	5,492	0	8,481	3,432	1,018	8,974	22,197	151	235	49,980	49,980	329
Zaire	4,357	0	0	0	0	0	0	0	0	0	0	0	4,357	29
Other Western Hemisphere	423	127	1,699	0	0	0	6	43	5,327	149	144	7,494	7,917	52

See footnotes at end of table.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - May 1984
(Thousand Barrels)
(continued)

Source	Crude Oil 1	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 2	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
							All PAD Districts							
Other														
Other Eastern Hemisphere	18,608	2	4,474	850	6,250	1,429	60	2,090	8,332	854	1,356	25,696	44,304	291
Subtotal Other	277,415	32,192	31,336	9,797	36,234	8,426	1,184	29,888	81,176	5,607	11,313	247,154	524,569	3,451
Total Imports	510,846	33,885	38,177	11,012	46,063	11,047	1,184	39,647	120,892	7,795	14,652	324,355	835,201	5,495
							PAD District I							
Arab OPEC														
Algeria	7,852	0	0	0	434	327	0	2,183	10,448	0	743	14,135	21,988	145
Kuwait	253	0	0	0	0	0	0	0	0	0	0	0	253	2
Saudi Arabia	9,345	338	650	0	0	0	0	0	0	0	(s)	988	10,333	68
United Arab Emirates	436	0	0	546	0	0	0	0	434	0	521	1,501	1,937	13
Subtotal Arab OPEC	17,886	338	650	546	434	327	0	2,183	10,882	0	1,264	16,624	34,510	227
Other OPEC														
Ecuador	302	0	0	0	0	0	0	0	982	0	0	982	1,284	8
Gabon	1,575	0	0	0	0	0	0	0	246	60	0	306	1,881	12
Indonesia	12,763	0	228	0	0	0	0	0	491	0	0	719	13,482	89
Nigeria	11,569	0	0	0	0	0	0	50	90	0	0	140	11,709	77
Venezuela	9,737	0	0	0	7,537	1,982	0	7,219	18,829	0	68	35,634	45,371	298
Subtotal Other OPEC	35,946	0	228	0	7,537	1,982	0	7,269	20,638	60	68	37,781	73,727	485
Other														
Angola	6,790	0	0	0	0	0	0	0	568	0	0	568	7,358	48
Australia	0	0	0	0	0	0	0	0	746	0	0	746	746	5
Bahamas	0	0	481	0	0	659	69	3,031	4,258	0	180	8,678	8,678	57
Brazil	2	0	0	0	2,439	0	0	0	2,921	0	(s)	5,360	5,362	35
Canada	5,576	1,310	31	0	1,074	0	31	3,985	2,700	100	982	10,214	15,790	104
Congo	1,865	0	0	0	0	0	0	0	742	0	0	742	2,607	17
Egypt	385	0	0	0	0	0	0	0	0	0	0	0	385	3
France	0	(s)	0	0	0	0	0	0	0	(s)	1	1	1	(s)
Ghana	0	0	0	0	0	0	0	0	119	0	0	119	119	1
Liberia	0	0	0	0	0	0	0	0	1,749	0	0	1,749	1,749	12
Mexico	12,245	0	0	2,343	0	215	0	740	328	0	33	3,660	15,904	105
Netherlands	0	(s)	0	190	4,229	196	0	5,426	988	0	1	11,029	11,029	73
Netherlands Antilles	0	0	5,382	207	4,192	378	0	1,471	20,393	0	7	32,029	32,029	211
Norway	10,520	0	0	0	0	89	0	366	0	0	0	456	10,975	72
Oman	496	0	0	0	0	0	0	0	585	0	0	585	1,081	7
People's Republic of China	675	0	0	0	0	0	0	0	0	0	(s)	(s)	675	4
Peru	2	0	0	0	0	0	0	0	3,604	0	0	3,604	3,606	24
Puerto Rico	0	0	910	0	1,748	253	0	772	0	749	924	5,357	5,357	35
Romania	0	0	252	1,988	522	0	0	0	0	183	2,870	5,816	5,816	38
Spain	0	0	0	0	727	825	0	123	782	0	(s)	2,456	2,456	16
Trinidad and Tobago	1,384	0	13	0	0	0	0	0	829	7	0	849	2,233	15
Tunisia	2	0	0	0	0	0	0	0	0	0	0	0	2	(s)
United Kingdom	26,488	287	471	79	1,699	154	0	163	655	(s)	282	3,789	30,277	199

See footnotes at end of table.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - May 1984 (Thousand Barrels) (continued)

Source	Crude Oil [1]	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products [2]	Total Products	Total Petroleum	Total (Daily Average)
	PAD District I													
Other														
Virgin Islands	0	0	2,376	0	8,481	3,432	1,018	8,974	21,899	0	0	46,180	46,180	304
Zaire	2,570	0	0	0	0	0	0	0	0	0	0	0	2,570	17
Other Western Hemisphere	0	127	611	0	0	0	0	32	5,327	0	8	6,104	6,104	40
Other Eastern Hemisphere	3,635	2	4	800	5,770	627	60	1,935	5,980	455	471	16,103	19,738	130
Subtotal Other	72,634	1,725	10,532	5,607	30,881	6,828	1,178	27,018	75,170	1,494	5,759	166,192	238,826	1,571
Total Imports	126,466	2,063	11,409	6,153	38,852	9,137	1,178	36,470	106,690	1,555	7,091	220,597	347,063	2,283
	PAD District II													
Arab OPEC														
Algeria	4,253	0	0	0	0	0	0	0	0	0	0	0	4,253	28
Saudi Arabia	2,092	0	0	0	0	0	0	0	0	0	0	0	2,092	14
United Arab Emirates	1,075	0	0	0	0	0	0	0	0	0	0	0	1,075	7
Subtotal Arab OPEC	7,420	0	0	0	0	0	0	0	0	0	0	0	7,420	49
Other OPEC														
Ecuador	1,058	0	0	0	0	0	0	0	0	0	0	0	1,058	7
Indonesia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Iran	1,040	0	0	0	0	0	0	0	0	0	0	0	1,040	7
Nigeria	3,469	0	203	0	0	0	0	0	0	0	0	203	3,673	24
Venezuela	417	0	0	0	0	0	0	0	0	0	0	0	417	3
Subtotal Other OPEC	5,985	0	203	0	0	0	0	0	0	0	0	203	6,188	41
Other														
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bahamas	0	0	218	0	0	0	0	0	0	0	0	218	218	1
Canada	38,849	24,710	1,441	75	585	0	0	945	1,385	1,085	455	30,681	69,529	457
Congo	935	0	0	0	0	0	0	0	0	0	0	0	935	6
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	20,308	0	0	0	0	0	0	0	0	0	0	0	20,308	134
Netherlands	1,044	0	0	0	0	0	0	0	0	0	0	0	1,044	7
Norway	519	0	0	0	0	0	0	0	0	0	0	0	519	3
Trinidad and Tobago	4,283	0	0	0	0	0	0	0	0	0	0	0	4,283	28
United Kingdom	1,727	0	0	0	0	0	0	0	0	0	1	1	1,729	11
Other Western Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	407	(s)	0	0	0	0	0	0	0	0	2	2	408	3
Subtotal Other	68,072	24,711	1,660	75	585	0	0	945	1,385	1,085	458	30,902	98,974	651
Total Imports	81,477	24,711	1,863	75	585	0	0	945	1,385	1,085	458	31,105	112,582	741

See footnotes at end of table.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - May 1984
(Thousand Barrels)
(continued)

Source	Crude Oil 1	LPG	Unfin-ished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
	PAD District III													
Arab OPEC														
Algeria	18,076	0	0	0	0	0	0	50	0	1,828	1,519	3,397	21,473	141
Iraq	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Kuwait	2,584	0	0	0	0	0	0	0	2,893	0	0	2,893	5,476	36
Saudi Arabia	39,378	0	0	0	0	0	0	0	1,013	0	0	1,013	40,391	266
United Arab Emirates	12,696	0	527	0	0	221	0	0	1,311	0	249	2,307	15,003	99
Subtotal Arab OPEC	72,733	0	527	0	0	221	0	50	5,218	1,828	1,768	9,611	82,344	542
Other OPEC														
Ecuador	6,247	0	0	0	0	0	0	0	0	0	0	0	6,247	41
Gabon	6,242	0	0	0	0	0	0	0	0	0	0	0	6,242	41
Indonesia	6,519	1,356	0	0	0	0	0	0	1,313	0	71	2,740	9,259	61
Iran	1,032	0	0	0	0	0	0	0	0	0	0	0	1,032	7
Nigeria	23,781	0	1,091	0	0	0	0	3	0	0	0	1,094	24,875	164
Venezuela	28,244	0	1,810	669	765	0	0	0	631	68	167	4,110	32,353	213
Subtotal Other OPEC	72,064	1,356	2,901	669	765	0	0	3	1,944	68	238	7,943	80,007	526
Other														
Angola	5,600	0	0	0	0	0	0	0	0	0	0	0	5,600	37
Australia	2	0	0	0	0	0	0	0	0	0	87	87	89	1
Bahamas	0	0	4,054	0	0	0	0	279	0	0	1,931	6,265	6,265	41
Bolivia	260	0	0	0	0	0	0	0	0	0	0	0	260	2
Brazil	0	0	0	0	941	0	0	0	263	165	23	1,393	1,393	9
Canada	1	0	0	0	0	0	0	0	0	186	71	256	258	2
Congo	1,567	0	0	0	0	0	0	0	0	0	0	0	1,567	10
Egypt	674	0	0	0	0	0	0	0	0	0	0	0	674	4
France	0	0	(s)	0	0	0	(s)	0	0	0	10	10	10	(s)
Malaysia	0	0	125	0	0	0	0	0	0	0	0	125	125	1
Mexico	68,949	1,070	4,477	294	439	0	0	196	360	(s)	83	6,920	75,869	499
Netherlands	0	0	0	160	0	0	0	0	0	295	466	921	921	6
Netherlands Antilles	0	28	516	0	1,078	0	0	358	0	0	30	2,010	2,010	13
Norway	3,651	(s)	0	0	0	361	0	0	0	0	0	361	4,013	26
Oman	0	0	0	0	0	0	0	0	654	0	0	654	654	4
People's Republic of China	360	0	0	0	0	0	0	0	0	0	0	0	360	2
Peru	0	0	373	0	0	0	0	0	262	0	0	634	634	4
Puerto Rico	0	0	0	0	0	0	0	0	0	1,084	0	1,084	1,084	7
Romania	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	218	0	0	190	0	0	0	0	18	427	427	3
Trinidad and Tobago	4,761	0	0	0	0	0	0	0	0	0	16	16	4,777	31
United Kingdom	22,011	0	266	291	127	171	0	(s)	0	156	426	1,437	23,448	154
Virgin Islands	0	0	3,115	0	0	0	0	0	298	151	235	3,800	3,800	25
Zaire	1,788	0	0	0	0	0	0	0	0	0	0	0	1,788	12
Other Western Hemisphere	423	0	1,088	0	0	0	6	12	0	149	136	1,390	1,813	12
Other Eastern Hemisphere	13,162	0	3,726	0	0	693	0	56	1,441	318	103	6,338	19,500	128
Subtotal Other	123,209	1,098	17,959	745	2,585	1,416	6	901	3,278	2,505	3,635	34,129	157,338	1,035
Total Imports	268,007	2,453	21,387	1,414	3,350	1,636	6	954	10,439	4,401	5,641	51,683	319,689	2,103

See footnotes at end of table.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - May 1984 (Thousand Barrels) (continued)

Source	Crude Oil [1]	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products [2]	Total Products	Total Petroleum	Total (Daily Average)
							PAD District IV							
Other														
Canada	4,995	2,244	0	0	293	0	0	551	86	2	558	3,734	8,729	57
Other Eastern Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Other	4,995	2,244	0	0	293	0	0	551	86	2	558	3,734	8,729	57
Total Imports	4,995	2,244	0	0	293	0	0	551	86	2	558	3,734	8,729	57
							PAD District V							
Arab OPEC														
Algeria	934	0	253	0	0	0	0	0	0	0	0	253	1,187	8
Saudi Arabia	0	0	252	0	0	0	0	0	0	0	0	252	252	2
United Arab Emirates	0	0	269	0	0	0	0	0	0	0	0	269	269	2
Subtotal Arab OPEC	934	0	774	0	0	0	0	0	0	0	0	774	1,707	11
Other OPEC														
Ecuador	360	0	0	0	0	0	0	0	0	0	0	0	360	2
Indonesia	19,904	0	1,559	0	846	92	0	254	1,035	232	1	4,018	23,923	157
Venezuela	199	0	0	0	246	0	0	0	0	0	0	246	445	3
Subtotal Other OPEC	20,463	0	1,559	0	1,092	92	0	254	1,035	232	1	4,265	24,728	163
Other														
Australia	2,188	96	0	0	141	27	0	38	67	0	(s)	370	2,558	17
Brunei	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	4,912	2,286	120	0	876	0	(s)	80	0	93	41	3,497	8,409	55
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Malaysia	0	0	0	0	61	7	0	7	54	0	0	129	129	1
Mexico	0	33	0	0	0	0	0	10	34	0	14	91	91	1
Netherlands	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Netherlands Antilles	0	0	0	0	0	40	0	0	192	0	67	299	299	2
Norway	0	0	0	0	0	0	0	0	0	0	0	0	0	0
People's Republic of China	0	0	321	3,098	332	0	0	0	0	347	0	4,098	4,098	27
Puerto Rico	0	0	0	0	0	0	0	239	0	0	0	239	239	2
Romania	0	0	0	222	0	0	0	0	0	0	0	222	222	1
United Kingdom	0	0	0	0	0	0	0	0	0	(s)	0	(s)	(s)	(s)
Other Eastern Hemisphere	1,404	(s)	743	51	480	109	0	99	910	81	780	3,254	4,658	31
Subtotal Other	8,505	2,414	1,185	3,370	1,891	182	(s)	473	1,257	520	904	12,198	20,703	136
Total Imports	29,902	2,414	3,518	3,370	2,984	274	(s)	727	2,292	752	904	17,236	47,137	310

---

[1] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[2] Includes aviation gasoline, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 20. Exports of Crude Oil and Petroleum Products by PAD District, May 1984 (Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) [1]	0	597	0	0	6,185	6,782
Natural Gas Liquids	32	553	648	0	140	1,374
Pentanes Plus	0	82	0	0	0	82
Liquefied Petroleum Gases	32	471	648	0	140	1,292
Ethane	(s)	164	0	0	0	164
Propane	14	143	310	0	56	522
Normal Butane	18	82	339	0	84	523
Isobutane	0	82	0	0	0	82
Finished Motor Gasoline	2	1	1	0	2	6
Naphtha-Type Jet Fuel	0	0	0	0	0	0
Kerosene-Type Jet Fuel	(s)	0	(s)	0	22	22
Kerosene	5	0	0	0	(s)	5
Distillate Fuel Oil	5	0	193	0	1,301	1,498
Residual Fuel Oil	(s)	0	2,580	0	3,621	6,202
Naphtha < 400 Deg. for Petrochem. Feedstock	79	13	68	0	15	175
Other Oils > 400 Deg. for Petrochem. Feedstock	1	0	509	0	0	510
Special Naphthas	5	1	25	0	1	32
Lubricants	124	50	565	3	59	801
Waxes	5	1	32	0	4	42
Petroleum Coke	243	208	3,970	2	1,844	6,266
Asphalt	1	1	(s)	(s)	1	3
Miscellaneous Products	16	2	17	0	3	37
Total Product Exports	517	831	8,607	5	7,013	16,974
Total Exports	517	1,428	8,607	5	13,198	23,756

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 21. Year-to-Date Exports Of Crude Oil And Petroleum Products By PAD District, January - May 1984 (Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) [1]	0	2,195	(s)	0	27,132	29,327
Natural Gas Liquids	198	2,780	3,529	(s)	851	7,358
Pentanes Plus	0	414	0	0	0	414
Liquefied Petroleum Gases	198	2,366	3,529	(s)	851	6,944
Ethane	(s)	829	(s)	0	0	829
Propane	84	699	2,740	(s)	342	3,866
Normal Butane	114	423	789	(s)	509	1,835
Isobutane	0	414	0	0	0	414
Finished Motor Gasoline	73	4	216	0	84	376
Naphtha-Type Jet Fuel	(s)	0	94	0	0	94
Kerosene-Type Jet Fuel	176	139	(s)	0	263	578
Kerosene	10	0	1	0	(s)	11
Distillate Fuel Oil	415	56	1,862	(s)	4,611	6,944
Residual Fuel Oil	433	0	9,693	0	13,512	23,638
Naphtha < 400 Deg. for Petrochem. Feedstock	308	45	613	5	110	1,081
Other Oils > 400 Deg. for Petrochem. Feedstock	1	89	1,887	0	204	2,181
Special Naphthas	34	64	151	3	4	255
Lubricants	600	146	1,662	7	201	2,616
Waxes	25	3	148	0	18	193
Petroleum Coke	1,135	726	16,436	4	10,999	29,299
Asphalt	12	11	12	2	9	46
Miscellaneous Products	77	9	57	0	15	157
Total Product Exports	3,496	4,072	36,361	20	30,881	74,829
Total Exports	3,496	6,267	36,361	20	58,013	104,156

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, May 1984
(Thousand Barrels)

Destination	Crude Oil [1]	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other[2]	Total	Total (Daily Average)
Argentina	0	(s)	0	0	0	0	4	6	(s)	0	0	(s)	10	(s)
Australia	0	(s)	(s)	0	0	0	2	3	(s)	185	(s)	1	190	6
Bahamas	0	12	1	(s)	0	203	0	1	(s)	0	0	(s)	218	7
Bahrain	0	0	0	0	0	0	(s)	(s)	0	51	0	0	52	2
Belgium & Luxembourg	0	2	(s)	0	0	0	1	11	(s)	526	(s)	(s)	541	17
Brazil	0	0	0	0	0	0	7	6	0	0	0	1	14	(s)
Canada	597	473	2	0	16	71	4	104	3	393	3	144	1,810	58
Chile	0	0	0	0	0	0	1	13	(s)	(s)	0	1	15	(s)
China (Taiwan)	0	0	0	0	260	450	(s)	11	(s)	1	(s)	1	723	23
Colombia	0	0	0	0	0	0	(s)	1	8	0	0	(s)	10	(s)
Costa Rica	0	0	0	0	0	0	0	3	(s)	0	0	2	5	(s)
Denmark	0	1	0	0	(s)	0	0	(s)	(s)	55	0	0	56	2
Dominican Republic	0	13	0	0	0	0	0	1	0	0	0	1	14	(s)
Ecuador	0	0	0	0	0	0	(s)	1	(s)	0	0	(s)	1	(s)
Egypt	0	(s)	0	0	(s)	0	(s)	2	0	0	0	(s)	2	(s)
El Salvador	0	(s)	0	0	0	0	0	2	(s)	0	0	1	4	(s)
Finland	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
France	0	0	0	0	(s)	0	(s)	4	2	886	0	100	992	32
French Pacific Isl	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Ghana	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Guatemala	0	59	0	0	0	0	1	3	(s)	0	0	1	63	2
Guinea	0	0	0	0	0	123	0	1	0	0	0	(s)	124	4
Honduras	0	(s)	(s)	0	0	0	(s)	2	(s)	0	0	(s)	2	(s)
Hong Kong	0	(s)	0	0	0	990	0	1	(s)	0	0	(s)	992	32
India	0	0	0	0	0	0	0	2	(s)	0	0	0	2	(s)
Indonesia	0	(s)	0	0	(s)	0	(s)	5	(s)	91	0	(s)	97	3
Iran	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Israel	0	(s)	0	0	0	0	1	(s)	(s)	(s)	0	(s)	2	(s)
Italy	0	0	0	0	0	0	0	(s)	(s)	513	(s)	214	728	23
Jamaica	0	30	0	0	0	110	0	1	0	0	(s)	1	142	5
Japan	0	1	0	0	255	834	5	6	3	1,100	0	21	2,224	72
Jordan	0	0	0	0	0	0	0	1	0	0	0	(s)	2	(s)
Korea, Republic of	0	(s)	0	0	200	0	1	9	(s)	(s)	0	4	214	7
Kuwait	0	0	0	0	0	0	(s)	3	0	0	0	(s)	3	(s)
Lebanon	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Liberia	0	0	0	0	0	0	0	(s)	(s)	0	0	(s)	(s)	(s)
Malaysia	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Mexico	0	336	3	22	0	0	(s)	50	6	28	0	14	459	15
Netherlands	0	69	0	0	0	45	4	30	(s)	900	0	95	1,144	37
Netherlands Antilles	0	3	0	0	352	936	0	(s)	0	0	0	0	1,291	42
New Zealand	0	0	0	0	194	0	0	(s)	(s)	98	0	(s)	292	9
Nicaragua	0	(s)	0	0	0	0	(s)	(s)	0	0	0	1	1	(s)
Nigeria	0	0	0	0	0	0	0	5	0	0	0	0	5	(s)
Norway	0	0	0	0	(s)	0	0	(s)	0	118	0	(s)	118	4
Pacific Trust Terr.	0	(s)	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Panama	0	14	0	0	221	0	0	3	0	12	0	(s)	250	8
Peru	0	0	0	0	0	0	0	3	(s)	0	0	(s)	3	(s)
Philippines	0	3	0	0	0	0	1	6	(s)	0	0	(s)	10	(s)
Puerto Rico	1,214	15	0	0	0	(s)	(s)	17	1	0	0	41	1,288	42
Rep. of South Africa	0	0	0	0	0	0	0	15	13	0	(s)	150	179	6
Saudi Arabia	0	13	0	0	0	0	(s)	27	0	0	0	5	45	1
Singapore	0	(s)	0	0	0	711	0	1	(s)	0	(s)	(s)	712	23

See footnotes at end of table.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, May 1984
(Thousand Barrels)
(continued)

Destination	Crude Oil [1]	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other[2]	Total	Total (Daily Average)
Spain	0	2	0	0	0	227	0	362	(s)	602	0	(s)	1,194	39
Surinam	0	0	0	0	0	0	0	2	0	10	0	(s)	12	(s)
Sweden	0	0	0	0	0	0	0	1	(s)	26	(s)	(s)	27	1
Switzerland	0	2	0	0	0	0	0	1	(s)	0	0	(s)	3	(s)
Thailand	0	(s)	0	0	0	0	(s)	1	(s)	0	0	1	2	(s)
Trinidad and Tobago	0	1	0	0	0	0	(s)	3	(s)	0	0	(s)	4	(s)
Turkey	0	0	0	0	0	0	0	(s)	0	255	0	(s)	255	8
United Arab Emirates	0	1	0	0	0	0	0	8	0	58	0	(s)	68	2
United Kingdom	0	1	0	0	(s)	1,087	(s)	20	(s)	6	0	2	1,117	36
Uruguay	0	0	0	0	0	0	0	1	0	0	0	1	2	(s)
Venezuela	0	221	0	0	0	0	(s)	3	(s)	91	0	1	316	10
Virgin Islands	3,998	1	0	0	0	363	0	(s)	0	0	0	0	4,362	141
West Germany	0	0	0	0	0	0	0	27	(s)	144	0	1	172	6
Yugoslavia	0	0	0	0	0	0	0	(s)	0	117	0	0	117	4
Other	973	17	0	0	(s)	51	(s)	11	(s)	(s)	0	1	1,054	34
Total	6,782	1,292	6	22	1,498	6,202	32	801	42	6,266	3	810	23,756	766

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

[2] Includes pentanes plus, kerosene, naphtha less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January - May 1984
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	(s)	0	0	0	0	4	59	1	(s)	0	(s)	64	(s)
Australia	0	1	(s)	0	1	800	20	19	1	764	1	38	1,646	11
Bahamas	0	46	4	(s)	535	859	0	7	(s)	0	0	2	1,453	10
Bahrain	0	0	0	0	(s)	0	(s)	1	0	229	0	(s)	231	2
Belgium & Luxembourg	0	4	(s)	0	0	0	1	53	1	3,176	(s)	4	3,239	21
Brazil	0	1	0	0	0	0	7	8	(s)	68	0	5	89	1
Cameroon	0	0	0	0	0	0	0	(s)	0	61	0	0	61	(s)
Canada	2,195	2,379	70	220	1,384	1,239	74	356	13	2,069	22	690	10,711	70
Chile	0	(s)	0	0	0	0	2	56	(s)	1	2	3	63	(s)
China (Taiwan)	0	1	0	0	260	1,458	(s)	50	(s)	92	(s)	4	1,866	12
Colombia	0	4	0	0	0	0	2	20	47	(s)	0	3	77	1
Costa Rica	0	49	0	0	0	0	8	20	(s)	0	10	6	93	1
Denmark	0	1	0	0	(s)	0	0	1	(s)	372	0	1	375	2
Dominican Republic	0	175	0	0	0	0	0	2	1	32	0	2	213	1
Ecuador	0	301	25	0	332	(s)	3	4	1	0	1	5	672	4
Egypt	0	1	0	0	(s)	0	(s)	6	(s)	0	0	1	8	(s)
El Salvador	0	(s)	0	0	0	0	1	20	(s)	0	0	2	23	(s)
Finland	0	0	0	0	0	0	0	3	(s)	0	0	1	5	(s)
France	0	38	1	0	1	405	(s)	6	7	2,330	0	573	3,362	22
French Pacific Isl	0	0	0	0	0	0	0	1	0	0	(s)	0	1	(s)
Ghana	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Greece	0	2	0	0	(s)	0	(s)	1	(s)	153	0	1	158	1
Guatemala	0	219	0	0	0	0	3	16	2	0	(s)	3	243	2
Guinea	0	(s)	0	0	0	243	(s)	4	0	0	0	(s)	247	2
Honduras	0	2	(s)	0	(s)	0	3	21	(s)	(s)	(s)	1	27	(s)
Hong Kong	0	1	0	0	0	1,394	2	7	1	0	1	4	1,409	9
India	0	0	0	0	(s)	0	0	17	(s)	38	(s)	19	74	(s)
Indonesia	0	1	0	0	(s)	0	(s)	15	(s)	175	(s)	2	193	1
Iran	0	0	0	0	0	0	1	1	0	0	0	0	1	(s)
Israel	0	1	0	0	0	0	2	1	(s)	(s)	0	4	7	(s)
Italy	0	156	0	0	(s)	2,948	3	4	3	3,702	(s)	602	7,418	49
Ivory Coast	0	0	0	0	124	156	0	13	0	0	(s)	(s)	293	2
Jamaica	0	123	25	0	0	110	(s)	42	(s)	0	(s)	5	305	2
Japan	0	6	(s)	0	1,010	3,729	37	121	12	5,398	(s)	214	10,528	69
Jordan	0	(s)	0	0	0	0	(s)	3	0	(s)	0	(s)	4	(s)
Korea, Republic of	0	2	0	0	668	885	1	19	1	288	0	158	2,022	13
Kuwait	0	3	0	0	0	0	(s)	9	0	0	0	(s)	12	(s)
Lebanon	0	0	0	0	0	0	0	1	0	0	0	(s)	2	(s)
Liberia	0	(s)	0	0	0	251	0	2	(s)	0	(s)	(s)	253	2
Malaysia	0	(s)	0	0	(s)	0	(s)	3	(s)	0	0	1	4	(s)
Mexico	0	2,500	18	182	(s)	0	11	409	42	173	1	36	3,372	22
Netherlands	0	139	0	0	0	577	39	40	2	3,613	(s)	411	4,821	32
Netherlands Antilles	0	3	51	64	488	1,603	(s)	2	0	0	0	(s)	2,210	15
New Zealand	0	(s)	66	0	194	0	1	3	(s)	276	(s)	6	546	4
Nicaragua	0	(s)	0	0	0	0	(s)	23	0	0	0	2	25	(s)
Nigeria	0	(s)	0	0	0	0	(s)	47	0	0	(s)	(s)	48	(s)
Norway	0	(s)	0	0	(s)	0	0	1	0	553	0	1	555	4
Pacific Trust Terr.	0	1	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
Panama	0	48	113	0	866	516	3	27	(s)	12	(s)	2	1,586	10
Peru	0	(s)	0	0	576	0	(s)	63	(s)	0	0	1	641	4
Philippines	0	3	0	0	0	0	2	8	(s)	0	0	53	67	(s)
Puerto Rico	4,338	51	1	(s)	0	188	2	83	7	(s)	1	114	4,786	31
Rep. of South Africa	0	1	0	0	0	0	(s)	38	31	141	1	286	498	3

See footnotes at end of table.

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January - May 1984 (Thousand Barrels)

(continued)

Destination	Crude Oil [1]	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other[2]	Total	Total (Daily Average)
Saudi Arabia	0	46	0	0	(s)	0	(s)	118	0	0	0	19	183	1
Singapore	0	5	0	0	(s)	1,221	9	14	(s)	0	(s)	6	1,255	8
Spain	0	3	0	0	349	1,308	0	371	1	3,644	0	194	5,870	39
Surinam	0	0	0	0	0	0	0	5	0	35	0	1	41	(s)
Sweden	0	2	0	0	0	0	0	7	(s)	27	(s)	4	40	(s)
Switzerland	0	2	0	0	0	0	(s)	4	(s)	0	0	3	9	(s)
Thailand	0	(s)	0	0	0	0	1	31	(s)	(s)	0	62	94	1
Trinidad and Tobago	0	1	0	206	(s)	0	5	7	(s)	0	(s)	1	219	1
Turkey	0	(s)	0	0	0	0	(s)	1	(s)	276	0	144	422	3
United Arab Emirates	0	1	0	0	0	0	(s)	45	0	150	0	5	202	1
United Kingdom	0	41	(s)	0	5	1,087	1	29	2	67	(s)	13	1,246	8
U.S.S.R.	0	0	0	0	0	0	0	135	0	237	0	0	371	2
Uruguay	0	(s)	0	0	0	0	(s)	4	(s)	0	(s)	1	5	(s)
Venezuela	(s)	487	0	0	0	0	4	7	2	353	(s)	8	861	6
Virgin Islands	18,970	14	0	0	0	2,492	0	(s)	0	0	0	(s)	21,476	141
West Germany	0	(s)	0	0	0	0	(s)	61	11	425	(s)	15	513	3
Yugoslavia	0	0	0	0	0	0	0	(s)	(s)	285	0	0	286	2
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	29,327	6,944	376	672	6,944	23,638	255	2,616	193	29,299	46	3,845	104,156	685

---

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

[2] Includes pentanes plus, kerosene, naphtha less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, May 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil (incl. lease condensate)																	
Refinery	--	--	14,210	--	--	--	--	15,135	--	--	--	--	--	50,238	2,452	26,144	108,179
Tank Farms and Pipelines	--	--	1,671	--	--	--	--	62,645	--	--	--	--	--	99,721	10,161	26,403	200,601
Leases	--	--	61	--	--	--	--	1,617	--	--	--	--	--	16,860	1,371	1,717	21,626
Strategic Petroleum Reserve[1]	--	--	0	--	--	--	--	0	--	--	--	--	--	404,478	0	0	404,478
Alaskan In-Transit	--	--	0	--	--	--	--	0	--	--	--	--	--	0	0	28,707	28,707
Total	--	--	15,942	--	--	--	--	79,397	--	--	--	--	--	571,297	13,984	82,971	763,591
Total Stocks, All Oils (excl. Crude Oil)																	
Refinery	37,585	3,076	40,661	993	40,230	7,969	14,351	63,543	10,189	78,449	45,499	5,395	1,440	140,972	14,732	67,204	327,112
Bulk Terminal	--	--	103,904	--	--	--	--	77,027	--	--	--	--	--	78,353	3,281	23,621	286,186
Pipeline	--	--	24,986	--	--	--	--	36,157	--	--	--	--	--	41,767	2,740	4,822	110,472
Natural Gas Processing Plant	165	39	204	0	474	65	1,748	2,287	1,608	4,336	418	81	299	6,742	300	121	9,654
Total	--	--	169,755	--	--	--	--	179,014	--	--	--	--	--	267,834	21,053	95,768	733,424
Pentanes Plus																	
Refinery	14	0	14	0	88	39	229	356	113	392	121	20	24	670	19	15	1,074
Bulk Terminal	--	--	26	--	--	--	--	2,369	--	--	--	--	--	2,750	0	16	5,161
Pipeline	--	--	0	--	--	--	--	615	--	--	--	--	--	1,295	118	5	2,033
Natural Gas Processing Plant	1	10	11	0	60	19	311	390	463	548	153	32	38	1,234	118	24	1,777
Total	--	--	51	--	--	--	--	3,730	--	--	--	--	--	5,949	255	60	10,045
Liquefied Petroleum Gases																	
Refinery	543	14	557	139	1,598	164	513	2,414	174	683	1,819	31	20	2,727	320	674	6,692
Bulk Terminal	--	--	1,024	--	--	--	--	18,307	--	--	--	--	--	49,895	58	802	70,086
Pipeline	--	--	1,210	--	--	--	--	8,248	--	--	--	--	--	6,150	424	0	16,032
Natural Gas Processing Plant	141	29	170	0	412	46	1,437	1,895	1,051	3,786	265	49	261	5,412	163	97	7,737
Total	--	--	2,961	--	--	--	--	30,864	--	--	--	--	--	64,184	965	1,573	100,547
Ethane																	
Refinery	27	0	27	0	5	16	0	21	0	7	0	0	0	7	0	0	55
Bulk Terminal	--	--	0	--	--	--	--	2,531	--	--	--	--	--	13,004	0	0	15,535
Pipeline	--	--	0	--	--	--	--	1,775	--	--	--	--	--	1,971	128	0	3,874
Natural Gas Processing Plant	0	0	0	0	26	0	364	390	106	1,332	0	1	17	1,456	2	0	1,848
Total	--	--	27	--	--	--	--	4,717	--	--	--	--	--	16,438	130	0	21,312

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, May 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Propane for Petrochemical Feedstock Use																	
Refinery	41	0	41	0	68	0	0	68	2	6	38	0	0	46	0	0	155
Total	—	—	41	—	—	—	—	68	—	—	—	—	—	46	0	0	155
Propane For Other Uses																	
Refinery	432	6	438	4	989	32	123	1,148	53	59	1,348	3	2	1,465	147	257	3,455
Bulk Terminal	—	—	905	—	—	—	—	12,660	—	—	—	—	—	21,450	58	171	35,244
Pipeline	—	—	1,044	—	—	—	—	4,631	—	—	—	—	—	2,677	171	0	8,523
Natural Gas Processing Plant	116	29	145	0	270	26	667	963	572	1,286	145	27	143	2,173	109	83	3,473
Total	—	—	2,532	—	—	—	—	19,402	—	—	—	—	—	27,765	485	511	50,695
Normal Butane For Petro. Feed Use																	
Refinery	0	0	0	0	0	7	0	7	0	10	0	2	0	12	4	2	25
Total	—	—	0	—	—	—	—	7	—	—	—	—	—	12	4	2	25
Normal Butane For Other Uses																	
Refinery	43	8	51	66	298	72	227	663	76	458	261	16	9	820	127	376	2,037
Bulk Terminal	—	—	100	—	—	—	—	2,107	—	—	—	—	—	10,375	0	440	13,022
Pipeline	—	—	166	—	—	—	—	1,131	—	—	—	—	—	888	82	0	2,267
Natural Gas Processing Plant	24	0	24	0	92	16	331	439	313	814	79	18	89	1,313	45	8	1,829
Total	—	—	341	—	—	—	—	4,340	—	—	—	—	—	13,396	254	824	19,155
Isobutane																	
Refinery	0	0	0	69	238	37	163	507	43	143	172	10	9	377	42	39	965
Bulk Terminal	—	—	19	—	—	—	—	1,009	—	—	—	—	—	5,066	0	191	6,285
Pipeline	—	—	0	—	—	—	—	711	—	—	—	—	—	614	43	0	1,368
Natural Gas Processing Plant	1	0	1	0	24	4	75	103	60	354	41	3	12	470	7	6	587
Total	—	—	20	—	—	—	—	2,330	—	—	—	—	—	6,527	92	236	9,205
Other Hydrocarbons and Alcohol																	
Refinery	35	0	35	0	128	0	1	129	1	88	12	0	0	101	0	3	268
Total	—	—	35	—	—	—	—	129	—	—	—	—	—	101	0	3	268
Unfinished Oils																	
Refinery																	
Naphthas and Lighter	3,866	196	4,062	48	2,760	186	1,034	4,028	640	9,935	6,426	135	75	17,211	633	5,885	31,819
Kerosene and Lighter Gas Oils	1,957	18	1,975	0	2,663	4	314	2,981	624	7,475	2,830	57	5	10,991	403	4,098	20,448
Heavy Gas Oils	6,010	389	6,399	85	3,497	336	1,849	5,767	1,020	12,038	6,093	131	166	19,448	878	11,942	44,434
Residuum	3,275	260	3,535	1	2,935	31	1,363	4,330	431	6,285	4,668	38	26	11,448	814	5,393	25,520
Total	15,108	863	15,971	134	11,855	557	4,560	17,106	2,715	35,733	20,017	361	272	59,098	2,728	27,318	122,221

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, May 1984
(Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachian #1	Total	Appa-lachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Motor Gasoline Blending Components																	
Refinery	4,659	106	4,765	46	5,401	735	1,417	7,599	1,510	9,485	5,919	145	184	17,243	2,525	8,582	40,714
Bulk Terminal	--	--	140	--	--	--	--	116	--	--	--	--	--	886	1	197	1,340
Pipeline	--	--	0	--	--	--	--	2	--	--	--	--	--	5	0	0	7
Total	--	--	4,905	--	--	--	--	7,717	--	--	--	--	--	18,134	2,526	8,779	42,061
Aviation Gasoline Blending Components																	
Refinery	0	0	0	0	152	0	8	160	0	0	197	0	0	197	0	29	386
Total	--	--	0	--	--	--	--	160	--	--	--	--	--	197	0	29	386
Total Finished Motor Gasoline																	
Refinery	5,037	450	5,487	63	7,637	1,633	2,891	12,224	2,224	10,401	5,187	1,807	197	19,816	3,097	8,878	49,502
Bulk Terminal	--	--	45,629	--	--	--	--	31,311	--	--	--	--	--	14,439	1,944	11,729	105,052
Pipeline	--	--	15,070	--	--	--	--	17,055	--	--	--	--	--	20,590	1,263	2,120	56,098
Natural Gas Processing Plant	23	0	23	0	0	0	0	0	0	0	0	0	0	0	17	0	40
Total	--	--	66,209	--	--	--	--	60,590	--	--	--	--	--	54,845	6,321	22,727	210,692
Finished Leaded Motor Gasoline																	
Refinery	2,072	287	2,359	33	3,355	883	1,649	5,920	1,127	4,584	2,249	637	113	8,710	2,010	4,357	23,356
Bulk Terminal	--	--	21,953	--	--	--	--	15,568	--	--	--	--	--	8,000	1,215	5,837	52,573
Pipeline	--	--	5,773	--	--	--	--	9,156	--	--	--	--	--	8,608	760	899	25,196
Natural Gas Processing Plant	14	0	14	0	0	0	0	0	0	0	0	0	0	0	12	0	26
Total	--	--	30,099	--	--	--	--	30,644	--	--	--	--	--	25,318	3,997	11,093	101,151
Finished Unleaded Motor Gasoline																	
Refinery	2,965	163	3,128	30	4,282	750	1,242	6,304	1,097	5,817	2,938	1,170	84	11,106	1,087	4,521	26,146
Bulk Terminal	--	--	23,676	--	--	--	--	15,743	--	--	--	--	--	6,439	729	5,892	52,479
Pipeline	--	--	9,297	--	--	--	--	7,899	--	--	--	--	--	11,982	503	1,221	30,902
Natural Gas Processing Plant	9	0	9	0	0	0	0	0	0	0	0	0	0	0	5	0	14
Total	--	--	36,110	--	--	--	--	29,946	--	--	--	--	--	29,527	2,324	11,634	109,541
Finished Aviation Gasoline																	
Refinery	37	0	37	0	89	0	7	96	155	296	152	0	0	603	48	174	958
Bulk Terminal	--	--	358	--	--	--	--	337	--	--	--	--	--	117	16	255	1,083
Pipeline	--	--	15	--	--	--	--	88	--	--	--	--	--	63	0	61	227
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	27	0	0	0	0	27	0	0	27
Total	--	--	410	--	--	--	--	521	--	--	--	--	--	810	64	490	2,295

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, May 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Naphtha-Type Jet Fuel																	
Refinery	215	34	249	0	519	106	158	783	341	591	250	199	145	1,526	198	821	3,577
Bulk Terminal	--	--	530	--	--	--	--	559	--	--	--	--	--	168	10	514	1,781
Pipeline	--	--	150	--	--	--	--	173	--	--	--	--	--	419	80	398	1,220
Total	--	--	929	--	--	--	--	1,515	--	--	--	--	--	2,113	288	1,733	6,578
Kerosene-Type Jet Fuel																	
Refinery	914	0	914	25	1,159	287	102	1,573	354	2,791	2,360	8	40	5,553	387	3,284	11,711
Bulk Terminal	--	--	4,019	--	--	--	--	4,334	--	--	--	--	--	1,225	232	1,747	11,557
Pipeline	--	--	3,268	--	--	--	--	2,119	--	--	--	--	--	4,785	214	685	11,071
Total	--	--	8,201	--	--	--	--	8,026	--	--	--	--	--	11,563	833	5,716	34,339
Kerosene																	
Refinery	199	63	262	0	374	35	305	714	77	432	535	14	44	1,102	0	202	2,280
Bulk Terminal	--	--	2,832	--	--	--	--	1,025	--	--	--	--	--	422	39	41	4,359
Pipeline	--	--	78	--	--	--	--	231	--	--	--	--	--	662	0	0	971
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2
Total	--	--	3,172	--	--	--	--	1,970	--	--	--	--	--	2,188	39	243	7,612
Distillate Fuel Oils																	
Refinery	4,296	296	4,592	44	4,138	1,462	2,294	7,938	864	6,639	3,205	562	239	11,509	2,063	5,016	31,118
Bulk Terminal	--	--	22,770	--	--	--	--	11,676	--	--	--	--	--	4,603	709	5,226	44,984
Pipeline	--	--	5,169	--	--	--	--	7,453	--	--	--	--	--	7,518	641	1,273	22,054
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	2
Total	--	--	32,531	--	--	--	--	27,067	--	--	--	--	--	23,632	3,413	11,515	98,158
Residual Fuel Oils																	
Refinery	2,276	98	2,374	66	1,743	288	175	2,272	368	4,111	2,464	163	14	7,120	551	6,628	18,945
Bulk Terminal	--	--	20,715	--	--	--	--	1,671	--	--	--	--	--	2,935	0	1,797	27,118
Pipeline	--	--	5	--	--	--	--	0	--	--	--	--	--	1	0	222	228
Total	--	--	23,094	--	--	--	--	3,943	--	--	--	--	--	10,056	551	8,647	46,291
Naphtha < 400 Deg. Petro. Feedstock																	
Refinery	268	0	268	0	107	0	42	149	69	728	276	48	0	1,121	0	201	1,739
Total	268	0	268	0	107	0	42	149	69	728	276	48	0	1,121	0	201	1,739
Other Oils > 400 Deg. Petro. Feedstock																	
Refinery	5	0	5	0	20	0	0	20	228	1,185	285	0	0	1,698	3	448	2,174
Total	5	0	5	0	20	0	0	20	228	1,185	285	0	0	1,698	3	448	2,174

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, May 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Special Naphthas																	
Refinery	85	31	116	0	166	0	189	355	27	1,048	82	144	0	1,301	8	173	1,953
Bulk Terminal	--	--	606	--	--	--	--	148	--	--	--	--	--	31	0	44	829
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	61	0	0	0	0	61	0	0	61
Total	--	--	722	--	--	--	--	503	--	--	--	--	--	1,393	8	217	2,843
Lubricants																	
Refinery	956	850	1,806	0	709	0	424	1,133	19	2,724	1,125	590	0	4,458	72	510	7,979
Bulk Terminal	--	--	1,171	--	--	--	--	740	--	--	--	--	--	263	2	776	2,952
Total	--	--	2,977	--	--	--	--	1,873	--	--	--	--	--	4,721	74	1,286	10,931
Waxes																	
Refinery	8	89	97	0	27	0	21	48	12	196	97	58	0	363	0	48	556
Total	--	--	97	--	--	--	--	48	--	--	--	--	--	363	0	48	556
Petroleum Coke																	
Refinery	545	0	545	0	345	702	123	1,170	0	60	915	202	0	1,177	168	1,841	4,901
Total	545	0	545	0	345	702	123	1,170	0	60	915	202	0	1,177	168	1,841	4,901
Asphalt and Road Oil																	
Refinery	2,156	161	2,317	476	3,868	1,956	874	7,174	900	347	384	955	261	2,847	2,535	2,220	17,093
Bulk Terminal	--	--	3,949	--	--	--	--	4,401	--	--	--	--	--	557	267	345	9,519
Total	--	--	6,266	--	--	--	--	11,575	--	--	--	--	--	3,404	2,802	2,565	26,612
Miscellaneous Products																	
Refinery	229	21	250	0	107	5	18	130	38	519	97	88	0	742	10	139	1,271
Bulk Terminal	--	--	135	--	--	--	--	33	--	--	--	--	--	62	3	132	365
Pipeline	--	--	21	--	--	--	--	173	--	--	--	--	--	279	0	58	531
Natural Gas Processing Plant	0	0	0	0	2	0	0	2	4	0	0	0	0	4	2	0	8
Total	--	--	406	--	--	--	--	338	--	--	--	--	--	1,087	15	329	2,175
Total Stocks, All Oils	--	--	185,697	--	--	--	--	258,411	--	--	--	--	--	839,131	35,037	178,739	1,497,015

---

1 Includes 33,879 thousand barrels of domestic crude oil.

Source: See Explanatory Notes on Data Collection and Estimation.

-- Not Applicable.

Table 25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, May 1984
(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I Total	**24,312**	**26,804**	**3,094**	**27,362**	**23,089**
Connecticut	598	917	50	1,381	254
Delaware, D.C., Maryland	1,323	1,445	184	1,770	2,166
Florida	2,860	3,843	244	1,771	1,395
Georgia	1,543	1,696	73	900	250
Maine	433	476	62	828	543
Massachusetts	1,055	1,284	19	1,686	546
New Hampshire, Vermont	66	84	w	251	154
New Jersey	3,886	4,941	645	6,683	9,922
New York	5,023	2,785	305	3,791	3,473
North Carolina	1,418	1,471	514	1,015	683
Pennsylvania	3,064	3,964	476	3,819	1,917
Rhode Island	271	650	w	740	56
South Carolina	868	1,040	195	763	619
Virginia	1,646	1,965	292	1,771	987
West Virginia	258	243	17	193	124
PAD District II Total	**21,488**	**22,047**	**1,739**	**19,614**	**3,943**
Illinois	3,996	5,201	240	3,726	975
Indiana	2,855	3,120	148	2,157	522
Iowa	779	633	w	811	w
Kansas	1,286	894	19	1,548	86
Kentucky	914	1,179	150	968	202
Michigan	2,400	2,322	404	1,897	545
Minnesota	1,607	1,050	w	1,713	298
Missouri	800	646	w	520	w
Nebraska	409	227	0	185	0
North & South Dakota	427	317	0	771	w
Ohio	2,459	2,902	329	2,277	537
Oklahoma	1,150	1,195	289	1,256	218
Tennessee	1,196	1,191	84	610	117
Wisconsin	1,210	1,170	w	1,175	128
PAD District III Total	**16,710**	**17,545**	**1,524**	**16,112**	**10,055**
Alabama	894	961	41	800	602
Arkansas	205	259	w	215	57
Louisiana	2,439	3,245	543	3,314	3,076
Mississippi	1,353	2,066	10	937	519
New Mexico	286	191	w	342	14
Texas	11,533	10,823	883	10,504	5,787
PAD District IV Total	**3,225**	**1,816**	**39**	**2,772**	**551**
Colorado	828	563	0	425	142
Idaho	253	110	0	177	0
Montana	791	433	w	697	104
Utah	355	246	0	641	210
Wyoming	998	464	w	832	95
PAD District V Total	**10,194**	**10,413**	**243**	**10,242**	**8,425**
Alaska	474	262	w	1,218	w
Arizona	566	469	w	311	0
California	5,614	6,828	109	5,410	5,928
Hawaii	287	229	0	277	w
Nevada	195	244	w	144	w
Oregon	726	711	w	1,029	171
Washington	2,332	1,670	w	1,853	1,369

Commodity	From I to			From II to				From III to				From IV to			From V to			
	II	III	V	I	III	IV	V	I	II	IV	V	II	III	V	I	II	III	IV
Crude Oil (Tanker and Barge only)	0	235	0	0	0	0	0	317	2,031	0	0	0	0	0	3,111	1,452	13,615	0
Petroleum Products	8,666	376	0	3,218	10,127	2,235	0	79,662	26,868	0	1,999	1,853	782	1,293	0	0	0	0
Pentanes Plus	0	0	0	0	1,068	0	0	0	1,127	0	0	146	125	0	0	0	0	0
Liquefied Petroleum Gases	0	0	0	791	6,009	64	0	781	6,506	0	0	715	657	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	0	1,168	83	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	6,185	0	0	1,468	2,013	1,419	0	49,617	11,480	0	1,084	539	0	911	0	0	0	0
Finished Leaded Motor Gasoline	3,183	0	0	468	1,017	752	0	18,392	6,132	0	551	382	0	515	0	0	0	0
Finished Unleaded Motor Gasoline	3,002	0	0	1,000	996	667	0	31,225	5,348	0	533	157	0	396	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	13	0	224	182	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	114	40	0	0	67	0	0	624	2	0	233	65	0	83	0	0	0	0
Kerosene-Type Jet Fuel	207	0	0	77	39	468	0	8,830	2,194	0	161	3	0	119	0	0	0	0
Kerosene	9	0	0	0	0	0	0	71	25	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	2,071	0	0	386	654	271	0	15,590	4,445	0	426	385	0	180	0	0	0	0
Residual Fuel Oil	0	0	0	107	259	0	0	1,190	0	0	0	0	0	0	0	0	0	0
Naphtha and Other Oils for Petro. Feedstock	31	0	0	36	0	0	0	0	10	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	313	156	0	0	0	0	0	0	0	0	0
Lubricants	9	125	0	83	9	0	0	922	300	0	95	0	0	0	0	0	0	0
Waxes	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	95	0	115	0	0	0	146	307	0	0	0	0	0	0	0	0	0
Miscellaneous Products	40	116	0	155	9	0	0	180	51	0	0	0	0	0	0	0	0	0
Total All Products	8,666	611	0	3,218	10,127	2,235	0	79,979	28,899	0	1,999	1,853	782	1,293	3,111	1,452	13,615	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 27. Movements of Petroleum Products by Pipeline between PAD Districts, May 1984
(Thousand Barrels)

Commodity	From I to		From II to			From III to				From IV to			From V to	
	II	III	I	III	IV	I	II	IV	V	II	III	V	III	IV
Pentanes Plus	0	0	0	1,068	0	0	1,127	0	0	146	125	0	0	0
Liquefied Petroleum Gases	0	0	791	6,009	64	624	6,506	0	0	715	657	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	4,561	0	1,254	1,955	1,419	39,254	10,619	0	1,084	539	0	911	0	0
Finished Leaded Motor Gasoline	2,353	0	380	990	752	14,726	5,759	0	551	382	0	515	0	0
Finished Unleaded Motor Gasoline	2,208	0	874	965	667	24,528	4,860	0	533	157	0	396	0	0
Finished Aviation Gasoline	0	0	0	0	13	31	145	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	67	0	421	2	0	233	65	0	83	0	0
Kerosene-Type Jet Fuel	85	0	69	39	468	6,228	1,890	0	161	3	0	119	0	0
Kerosene	1	0	0	0	0	57	25	0	0	0	0	0	0	0
Distillate Fuel Oil	1,452	0	319	646	271	11,685	3,683	0	426	385	0	180	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	145	0	0	0	0	0	0	0	0	0	0	0
Total	6,099	0	2,578	9,784	2,235	58,300	23,997	0	1,904	1,853	782	1,293	0	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 28. Movements of Crude Oil and Petroleum Products by Tanker and Barge between PAD Districts, May 1984
(Thousand Barrels)

Commodity	From I to			From II to			From III to						From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Crude Oil	0	235	0	0	0	0	317	0	317	0	2,031	0	3,111	1,452	13,615
Petroleum Products	2,567	376	0	640	343	0	21,362	1,176	4,657	15,529	2,871	95	0	0	0
Liquefied Petroleum Gases	0	0	0	0	0	0	157	0	0	157	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	1,168	0	1,168	0	83	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	1,624	0	0	214	58	0	10,363	228	700	9,435	861	0	0	0	0
Finished Leaded Motor Gasoline	830	0	0	88	27	0	3,666	49	59	3,558	373	0	0	0	0
Finished Unleaded Motor Gasoline	794	0	0	126	31	0	6,697	179	641	5,877	488	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	193	0	78	115	37	0	0	0	0
Naphtha-Type Jet Fuel	114	40	0	0	0	0	203	10	193	0	0	0	0	0	0
Kerosene-Type Jet Fuel	122	0	0	8	0	0	2,602	320	626	1,656	304	0	0	0	0
Kerosene	8	0	0	0	0	0	14	0	0	14	0	0	0	0	0
Distillate Fuel Oil	619	0	0	67	8	0	3,905	439	737	2,729	762	0	0	0	0
Residual Fuel Oil	0	0	0	107	259	0	1,190	179	145	866	0	0	0	0	0
Naphtha and Other Oils for Petro. Feed. Use	31	0	0	36	0	0	0	0	0	0	10	0	0	0	0
Special Naphthas	0	0	0	0	0	0	313	0	179	134	156	0	0	0	0
Lubricants	9	125	0	83	9	0	922	0	650	272	300	95	0	0	0
Waxes	0	0	0	0	0	0	6	0	6	0	0	0	0	0	0
Asphalt and Road Oil	0	95	0	115	0	0	146	0	18	128	307	0	0	0	0
Miscellaneous Products	40	116	0	10	9	0	180	0	157	23	51	0	0	0	0
Total	2,567	611	0	640	343	0	21,679	1,176	4,974	15,529	4,902	95	3,111	1,452	13,615

Source: See Explanatory Notes on Data Collection and Estimation.

Table 29. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker and Barge Between
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			PAD District V		
	Receipts into PADD I	Ship-ments from PADD I	Net Receipts PADD I	Receipts into PADD II	Ship-ments from PADD II	Net Receipts PADD II	Receipts into PADD III	Ship-ments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Ship-ments from PADD VI	Net Receipts PADD IV	Receipts into PADD V	Ship-ments from PADD V	Net Receipts PADD V
Crude Oil (Tanker and Barge only)	3,428	235	3,193	3,483	0	3,483	13,850	2,348	11,502	0	0	0	0	18,178	-18,178
Petroleum Products	82,880	9,042	73,838	37,387	15,580	21,807	11,285	108,529	-97,244	2,235	3,928	-1,693	3,292	0	3,292
Pentanes Plus	0	0	0	1,273	1,068	205	1,193	1,127	66	0	271	-271	0	0	0
Liquefied Petroleum Gases	1,572	0	1,572	7,221	6,864	357	6,666	7,287	-621	64	1,372	-1,308	0	0	0
Unfinished Oils	1,168	0	1,168	83	0	83	0	1,251	-1,251	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	51,085	6,185	44,900	18,204	4,900	13,304	2,013	62,181	-60,168	1,419	1,450	-31	1,995	0	1,995
Finished Leaded Motor Gasoline	18,860	3,183	15,677	9,697	2,237	7,460	1,017	25,075	-24,058	752	897	-145	1,066	0	1,066
Finished Unleaded Motor Gasoline	32,225	3,002	29,223	8,507	2,663	5,844	996	37,106	-36,110	667	553	114	929	0	929
Finished Aviation Gasoline	224	0	224	182	13	169	0	406	-406	13	0	13	0	0	0
Naphtha-Type Jet Fuel	624	154	470	181	67	114	107	859	-752	0	148	-148	316	0	316
Kerosene-Type Jet Fuel	8,907	207	8,700	2,404	584	1,820	39	11,185	-11,146	468	122	346	280	0	280
Kerosene	71	9	62	34	0	34	0	96	-96	0	0	0	0	0	0
Distillate Fuel Oil	15,976	2,071	13,905	6,901	1,311	5,590	654	20,461	-19,807	271	565	-294	606	0	606
Residual Fuel Oil	1,297	0	1,297	0	366	-366	259	1,190	-931	0	0	0	0	0	0
Naphtha and Other Oils for Petro. Feedstock Use	36	31	5	41	36	5	0	10	-10	0	0	0	0	0	0
Special Naphthas	313	0	313	156	0	156	0	469	-469	0	0	0	0	0	0
Lubricants	1,005	134	871	309	92	217	134	1,317	-1,183	0	0	0	95	0	95
Waxes	6	0	6	0	0	0	0	6	-6	0	0	0	0	0	0
Asphalt and Road Oil	261	95	166	307	115	192	95	453	-358	0	0	0	0	0	0
Miscellaneous Products	335	156	179	91	164	-73	125	231	-106	0	0	0	0	0	0
Total All Products	86,308	9,277	77,031	40,870	15,580	25,290	25,135	110,877	-85,742	2,235	3,928	-1,693	3,292	18,178	-14,886

Source: See Explanatory Notes on Data Collection and Estimation.

Table 30. Production of Residual Fuel Oil by Sulfur Content, May 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Residual Fuel Oil	2,988	85	3,073	78	1,279	189	280	1,826	691	6,306	2,765	238	11	10,011	335	10,453	25,698
0.00 to 0.30% Sulfur	11	23	34	0	93	8	0	101	89	454	492	74	8	1,117	100	608	1,960
0.31 to 1.00% Sulfur	2,774	2	2,776	55	251	0	151	457	488	1,195	690	117	0	2,490	57	2,436	8,216
Greater Than 1.00% Sulfur	203	60	263	23	935	181	129	1,268	114	4,657	1,583	47	3	6,404	178	7,409	15,522

Source: See Explanatory Notes on Data Collection and Estimation.

Table 31. Stocks of Residual Fuel Oil by Sulfur Content, May 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Residual Fuel Oil -- 0.00 to 0.30% Sulfur																	
Refinery	16	24	40	0	62	9	30	101	83	75	289	18	8	473	109	305	1,028
Bulk Terminal	--	--	5,012	--	--	--	--	7	--	--	--	--	--	0	0	15	5,034
Total	--	--	5,052	--	--	--	--	108	--	--	--	--	--	473	109	320	6,062
Residual Fuel Oil -- 0.31 to 1.00% Sulfur																	
Refinery	1,571	5	1,576	62	496	0	77	635	102	1,081	897	78	0	2,158	115	1,702	6,186
Bulk Terminal	--	--	7,569	--	--	--	--	438	--	--	--	--	--	1,511	0	588	10,106
Total	--	--	9,145	--	--	--	--	1,073	--	--	--	--	--	3,669	115	2,290	16,292
Residual Fuel Oil -- Greater than 1.00% Sulfur																	
Refinery	689	69	758	4	1,185	279	68	1,536	183	2,955	1,278	67	6	4,489	327	4,621	11,731
Bulk Terminal	--	--	8,134	--	--	--	--	1,226	--	--	--	--	--	1,424	0	1,194	11,978
Total	--	--	8,892	--	--	--	--	2,762	--	--	--	--	--	5,913	327	5,815	23,709

Source: See Explanatory Notes on Data Collection and Estimation.
-- Not Applicable

Table 32. Movements of Residual Fuel Oil by Tanker and Barge between PAD Districts, by Sulfur Content, May 1984 (Thousand Barrels)

Commodity	From I to			From II to			From III to						From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Residual Fuel Oil	0	0	0	107	259	0	1,190	179	145	866	0	0	0	0	0
0.00 to 0.30% Sulfur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.31 to 1.00% Sulfur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Greater Than 1.00% Sulfur	0	0	0	107	259	0	1,190	179	145	866	0	0	0	0	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, May 1984
(Thousand Barrels)

Country	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
Arab OPEC				
Algeria	1,590	0	0	1,590
Iraq	0	0	0	0
Kuwait	545	438	0	983
Libya	0	0	0	0
Qatar	0	0	0	0
Saudi Arabia	0	0	0	0
United Arab Emirates	0	541	0	541
Subtotal Arab OPEC	2,135	979	0	3,114
Other OPEC				
Ecuador	0	0	296	296
Gabon	0	0	0	0
Indonesia	521	16	57	594
Iran	0	0	0	0
Nigeria	0	0	0	0
Venezuela	896	0	1,524	2,420
Subtotal Other OPEC	1,417	16	1,877	3,310
Other				
Angola	0	0	0	0
Australia	197	0	0	197
Bahamas	462	0	0	462
Bolivia	0	0	0	0
Brazil	587	0	0	587
Brunei	0	0	0	0
Canada	21	278	687	987
Congo	0	0	0	0
Egypt	0	0	0	0
France	0	0	0	0
Ghana	0	0	0	0
Liberia	0	0	129	129
Malaysia	0	0	0	0
Mexico	0	0	7	7
Netherlands	0	0	0	0
Netherlands Antilles	226	378	1,674	2,278
Norway	0	0	0	0
Oman	272	0	0	272
People's Republic of China	0	0	0	0
Peru	0	0	779	779
Puerto Rico	0	0	0	0
Romania	0	0	0	0
Spain	0	0	6	6
Syria	0	0	0	0
Trinidad	0	0	0	0
Tunisia	0	0	0	0
United Kingdom	0	0	0	0
Virgin Islands	821	1,837	1,199	3,857
Yugoslavia	0	0	0	0
Zaire	0	0	0	0

See footnotes at end of table.

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, May 1984 (Thousand Barrels) (continued)

Country	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
Other				
Other Western Hemisphere	0	234	482	716
Other Eastern Hemisphere	(s)	454	23	477
Subtotal Other	2,586	3,181	4,987	10,754
Total Imports	6,138	4,177	6,864	17,178

(s) = Less than 500 barrels.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 34. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, May 1984 (Thousand Barrels)

State	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
PAD District I	**4,243**	**3,042**	**6,388**	**13,673**
Delaware	0	0	254	254
Florida	246	799	1,311	2,356
Maine	0	0	598	598
Maryland	0	249	333	582
Massachusetts	266	395	982	1,643
New Jersey	599	289	749	1,637
New York	2,746	1,013	1,395	5,154
Pennsylvania	150	298	65	513
Rhode Island	0	0	50	50
South Carolina	0	0	262	262
Vermont	10	0	(s)	11
Virginia	226	0	388	614
PAD District II	**2**	**46**	**194**	**241**
Illinois	0	46	45	91
Michigan	0	0	30	30
Minnesota	0	0	21	21
North Dakota	2	0	0	2
Ohio	0	0	47	47
Wisconsin	0	0	50	50
PAD District III	**1,892**	**979**	**0**	**2,871**
Louisiana	261	0	0	261
Texas	1,631	979	0	2,610
PAD District IV	**1**	**0**	**3**	**5**
Montana	1	0	3	5
PAD District V	(s)	**110**	**278**	**388**
California	0	0	198	198
Hawaii	(s)	110	80	190
All PAD Districts	**6,138**	**4,177**	**6,864**	**17,178**

Glossary

LIBRARY U. OF I. URBANA-CHAMPAIGN

Definitions of Petroleum Products and Other Terms

lcohol. The family name of a group of organic chem-
:al compounds composed of carbon, hydrogen, and
xygen. The series of molecules vary in chain length
nd are composed of a hydrocarbon plus a hydroxyl
roup; CH–(CH)n–OH. Alcohol includes methanol and
thanol.

lkylation. A refinery process for chemically combining
soparaffin with olefin hydrocarbons. The product, alky-
ate, has high octane value and is blended with motor
nd aviation gasoline to improve the antiknock value of
ne fuel.

PI Gravity. An arbitrary scale expressing the gravity or
ensity of liquid petroleum products. The measuring
cale is calibrated in terms of degrees API; it may be
alculated in terms of the following formula:

$$\text{Deg API} = \frac{141.5}{\text{sp gr 60F/60F}} - 131.5$$

romatics. Hydrocarbons characterized by unsaturated
ng structures of carbon atoms. Commercial petrole-
m aromatics are benzene, toluene, and xylene.

sphalt. A dark-brown-to-black cement-like material
ontaining bitumens as the predominant constituents,
btained by petroleum processing. The definition in-
ludes crude asphalt as well as the following finished
roducts: cements, fluxes, the asphalt content of
mulsions (exclusive of water), and petroleum distil-
ates blended with asphalt to make cutback asphalts.
he conversion factor for asphalt is 5.5 barrels of 42
.S. gallons per short ton.

STM. The acronym for the American Society for Test-
ng and Materials.

viation Gasoline Blending Components. Finished
omponents in the gasoline range which will be used
or blending or compounding into finished aviation
asoline.

viation Gasoline (Finished). All special grades of
asoline for use in aviation reciprocating engines, as
iven in ASTM Specification D910 and Military Specifi-
ation MIL-G5572. Excludes blending components
vhich will be used in blending or compounding into fin-
shed aviation gasoline.

arrel. A volumetric unit of measure for crude oil and
etroleum products equivalent to 42 U.S. gallons. This
neasure is used in most statistical reports. Factors for
onverting petroleum coke, asphalt and wax to barrels
re given in the definitions for these products.

arrels Per Calendar Day. See ***Operable Capacity***.

arrels Per Stream Day. See ***Operable Capacity***.

Bi-Metallic. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of two metals (e.g. platinum, rhenium).

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon. (C4H10). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is covered by ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

> ***Isobutane.*** A normally gaseous branch-chain hydrocarbon, (C4H10). It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. It is extracted from natural gas or refinery gas streams.
>
> ***Normal Butane.*** A normally gaseous straight-chain hydrocarbon, (C4H10). It is a colorless paraffinic gas that boils at a temperature of 31.1 degrees F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C4H8), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil.

Catalytic Hydrocracking. A refining process for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. Hydrocracking is an efficient, relatively low temperature process using hydrogen and a catalyst.

Catalytic Hydrotreating. A process for treating petroleum fractions (e.g. distillate fuel oil and residual oil) and unfinished oils (e.g. naphthas, reformer feeds and heavy gas oils) in the presence of catalysts and substantial quantities of hydrogen to upgrade their quality.

Catalytic Reforming. The use of controlled heat and pressure with catalysts to effect the rearrangement of certain hydrocarbon molecules without altering their composition appreciably; the conversion of low-octane gasoline fractions into higher octane stocks suitable for blending into finished gasoline; also the conversion of naphthas to obtain a more volatile product of higher octane number.

Conventional. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of a metal and a non-metal (e.g. platinum, alumina).

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratifed carbonaceous rocks are either solid or brittle and are highly combustible. In-

cludes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Distillation. The refining process of separating crude oil components by heating and subsequent condensing of the fractions by cooling.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite and oil shale. Drip gases are also included, but topped crude oil (residual) oil and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign according to the following:

Domestic. Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 U.S.C. 1331.

Foreign. Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Delayed Coking. A process to produce low Conradson carbon gas oil for catalytic cracking feedstock and for gasoline.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

No. 1 Fuel Oil. A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 degrees F. at the 10-percent point and 550 degrees F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.

No. 2 Fuel Oil. A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 specifies for this grade distillation temperatures at the 90-percent point between 540 degrees and 640 degrees F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.

No. 1 and No. 2 Diesel Fuel Oils. Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D975:

No. 1-D. A volatile distillate fuel oil with a boiling range between 300-575 degrees F. and used in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.

No. 2-D. A gas oil type distillate of lower volatilit
with distillation temperatures at the 90-percer
point between 540-640 degrees F. for use in high
speed diesel engines generally operated under un
form speed and load conditions. Includes Typ
R-R diesel fuel used for railroad locomotive er
gines, and Type T-T for diesel-engine trucks. Prop
erties are defined in ASTM Specification D975.

No. 4 Fuel Oil. A fuel oil for commercial burner ir
stallations not equipped with preheating facilities.
is used extensively in industrial plants. This grade i
a blend of distillate fuel oil and residual fuel o
stocks that conforms to ASTM Specification D396 c
Federal Specification VV-F-815C; its kinematic vis
cosity is between 5.8 and 26.4 centistokes at 100 de
grees F. Also included is No. 4-D, a fuel oil for low
and medium-speed diesel engines that conforms t
ASTM Specification D975.

Eastern Hemisphere. That half of the earth east of th
Atlantic Ocean which includes Europe, Asia, Africa an
Australia. The Hawaiian Foreign Trade Zone is in thi
hemisphere.

Electric Energy (Purchased). Electricity purchased fc
refinery operations that is not produced within the re
finery complex.

Ethane. A normally gaseous straight-chain hydroca
bon, (C_2H_6). It is a colorless paraffinic gas that boils a
a temperature of −127.48 degrees F. It is extracte
from natural gas and refinery gas streams.

Ethylene. An olefinic hydrocarbon, (C_2H_4), recovere
from refinery processes or petrochemical processes.

Field Production. Represents crude oil production o
leases, natural gas liquids production at natural ga
processing plants, and new supply of other hydroca
bons and alcohol.

Fluid Coking. A thermal process utilizing the fluidizec
solids technique for continuous conversion of heavy
low-grade oils into lighter products.

Gasohol. See ***Motor Gasoline (Finished).***

Gas Oil. A liquid petroleum distillate having a viscosit
intermediate between that of kerosene and lubricatin
oil. Derives its name from having originally been use
in the manufacture of illuminating gas. Now supplie
distillate-type fuel oils and diesel fuel, also cracked t
produce gasoline.

Gasoline Blending Components. Finished component
in the gasoline range which will be used for blending c
compounding into finished aviation or motor gasoline.

Idle Capacity. The component of operable capacity tha
is not in operation and not under active repairs, bu
capable of being placed in operation within 30 days
and capacity not in operation but under active repair
that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of fo
eign crude oil burned as a fuel oil, usually as residua
fuel oil, without being processed as such. Importe

LIBRARY U. OF I. URBANA-CHAMPAIGN

crude oil burned as fuel includes lease condensate and iquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

sobutane. See ***Butane.***

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule. Used to convert normal butane into isobutane, an alyklation process feedstock, and normal pentane and hexane into isopentane and isohexane, high-octane gasoline components.

Kerosene. A petroleum distillate that boils at a temperature between 300-550 degrees F., that has a flash point higher than 100 degrees F. by ASTM Method D56, that has a gravity range from 40-46 degrees API, and that has a burning point in the range of 150-175 degrees F. Included are the two classifications recognized by ASTM D3699: No. 1-K and No. 2-K, and all grades of keresene called range or stove oil which have properties similar to No. 1 fuel oil, but with a gravity of about 43 degrees API and a maximum end-point of 625 degrees F. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with an average gravity of 40.7 degrees API, and a 10 percent distillation temperature of 400 degrees F. It is covered by ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type; it is used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and nonassociated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Liquefied Petroleum Gases (LPG). Ethane, Ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/ or refrigeration they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane. Excludes still gas used for chemical or rubber manufacture which is reported as a petrochemical feedstock and also excludes liquefied petroleum gases intended for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstock or other uses.

Lubricating Oils. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include:

Bright Stock. A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.

Neutral. A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100 degrees F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.

Other. A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere, e.g., petrolatum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, speciality oils and medicinal oils.

Motor Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Specifications for motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, include a boiling range of 122-158 degrees F. at the 10-percent point to 365-374 degrees F. at the 90-percent point and a Reid vapor pressure range from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blend stock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol) in which 10 percent or more of the product is alcohol.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range with an average gravity of 52.8 degrees API and 20 to 90 percent distillation temperatures of 290 degrees to 470 degrees F, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specification of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: Ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e. products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C5H12), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Normal Butane. See ***Butane.***

OPEC. The acronym for the Organization of Petroleum Exporting Countries, oil-producing and exporting countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation, and not under active repairs but capable of being placed in operation within 30 days; or not in operation but under active repairs that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

> ***Barrels Per Calendar Day.*** The maximum number of barrels of input that can be processed in an atmospheric distillation facility during a twenty-four hou period after making allowances for the following limitations:
>
> > The capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planne distribution of intermediate streams through othe than downstream facilities is part of a refinery's normal operation.
> >
> > The types and grades of inputs to be processed.
> >
> > The types and grades of products expected to b manufactured.
> >
> > The environmental constraints associated with refinery operations.
> >
> > The reduction of capacity for scheduled downtim such as routine inspection, mechanical problems maintenance, repairs and turnaround.
> >
> > The reduction of capacity for unscheduled downtime such as mechanical problems, repairs, an slowdowns.
>
> ***Barrels Per Stream Day.*** The amount a unit can process running at full capacity under optimal crude an product slate conditions.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refiner and consumed as raw materials. Includes hydrogen coal tar derivatives, gilsonite, and natural gas receive by the refinery for reforming into hydrogen. Natural ga to be used as fuel is excluded.

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Include isopentane, natural gasoline and plant condensate.

Petrochemical Feedstock Use. Chemical feedstock derived from petroleum, principally for the manufactur of chemicals, synthetic rubber and a variety of plastics The categories reported are "Naphtha-Less than 40 degrees F. end-point" and "Other oils over 400 degree F. end point."

> ***Naphtha-Less Than 400 Degrees F. End-Point.*** naphtha with an end point of less than 400 degrees F that is intended for use as a petrochemical feedstock.
>
> ***Other Oils-Over 400 Degrees F. End-Point.*** Oils wit an end point over 400 degrees F. that is intended fo use as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reporte as marketable coke or catalyst coke. The conversio factor is 5 barrels of 42 U.S. gallons per short ton.

> ***Marketable Coke.*** Those grades of coke produced i delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sol as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (i.e., catalytic cracking) carbon is deposited on the catalyst thus, deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refinery process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained rom the processing of crude oil (including lease condensate), natural gas and other hydrocarbon compounds. Petroleum products include unfinished oils, iquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual uel oil, naphtha less than 400 F. end-point, other oils-over 400 F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Petroleum Refinery. An installation that manufacturers finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks excludes stocks of foreign origin that are held in bonded warehouse storage.

Propane. A normally gaseous straight-chain hydrocarbon, (C_3H_8). It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees F. It is extracted from natural gas or refinery gas streams. It includes all products covered by Gas Processors Association Specifications for commercial propane and HD-5 propane and ASTM Specification D1835.

Propylene. An olefinic hydrocarbon, (C_3H_6), recovered from refinery processes or petrochemical processes.

Residual Fuel Oil. The topped crude of refinery operations which includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D396 and Federal Specification VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2 (NATO Symbol F-77), and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust pallative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Special Naphthas. All finished products within the gasoline range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point and have a boiling range of 90 degrees to 220 degrees F. "Special naphthas" includes all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and/or refinery fuel use.

> ***Petrochemical Feedstock Use.*** Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc. are considered petrochemical products; therefore, only their feedstock equivalents are included.
>
> ***Fuel Use.*** All other still gas.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking is used to increase the yield of gasoline obtainable from crude oil.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid-being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal cracking process in which heavy vacuum-still bottoms produced on the primary distillation unit are cracked to increase production of distillate products.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series pre-

dominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42-U.S. gallon barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics:

> Penetration at 77 degrees F. (D1321)-60 maximum. Viscosity at 210 degrees F. in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored para fin wax having the following characteristics:

> Viscosity at 210 degrees F. (D88)-59.9 SUS (10.1 centistokes) maximum. Oil Content (D721)-0.5 pe cent maximum. Other +20 color, Saybolt min mum.

Crystalline-Other Wax. A paraffin wax having the fo lowing characteristics:

> Viscosity at 210 degrees F. (D88)-59.9 SUS (10.1 centistokes) maximum. Oil Content (D721)-0.5 percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that in cludes North and South America and adjacent islands.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Bureau of Mines Petroleum Refining Districts and PAD Districts

he following are the Bureau of Mines petroleum refining istricts which make up the PAD districts:

PAD District I

ast Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following ounties in the State of Pennsylvania: Bradford, Sullian, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian #1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

PAD District II

Appalachian #2: The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Frankn, Pickaway, Ross, Pike, Scioto, and all counties east hereof.

ndiana—Illinois—Kentucky: The States of Indiana, Ilinois, Kentucky, Tennessee, Michigan, and that part of he State of Ohio not included in the Appalachian Disrict.

Minnesota—Wisconsin—North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma—Kansas—Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana—Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

PAD District IV

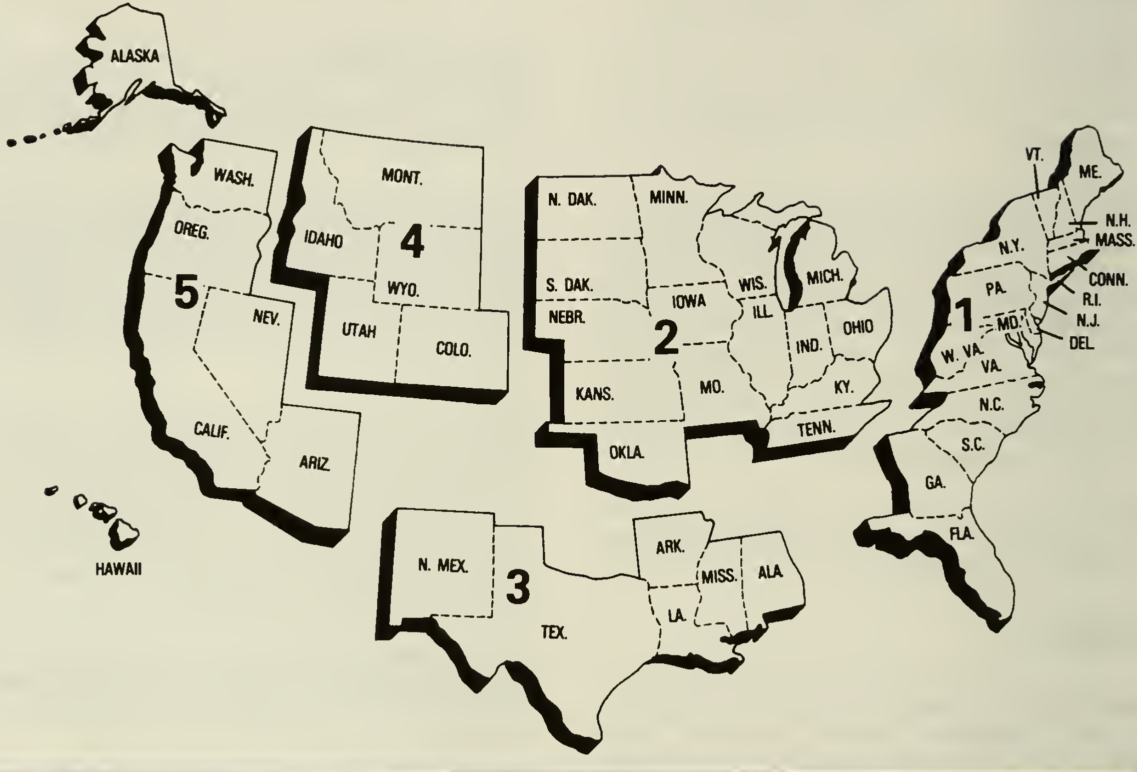
Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

PAD District V

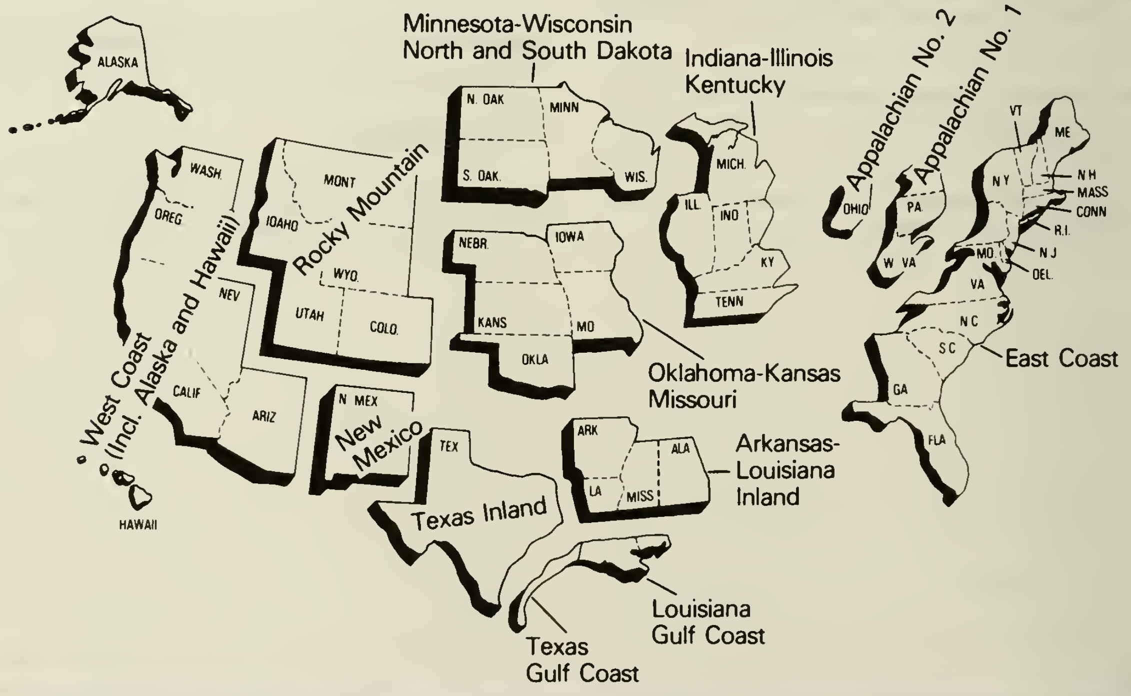
West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

LIBRARY U. OF I. URBANA-CHAMPAIGN

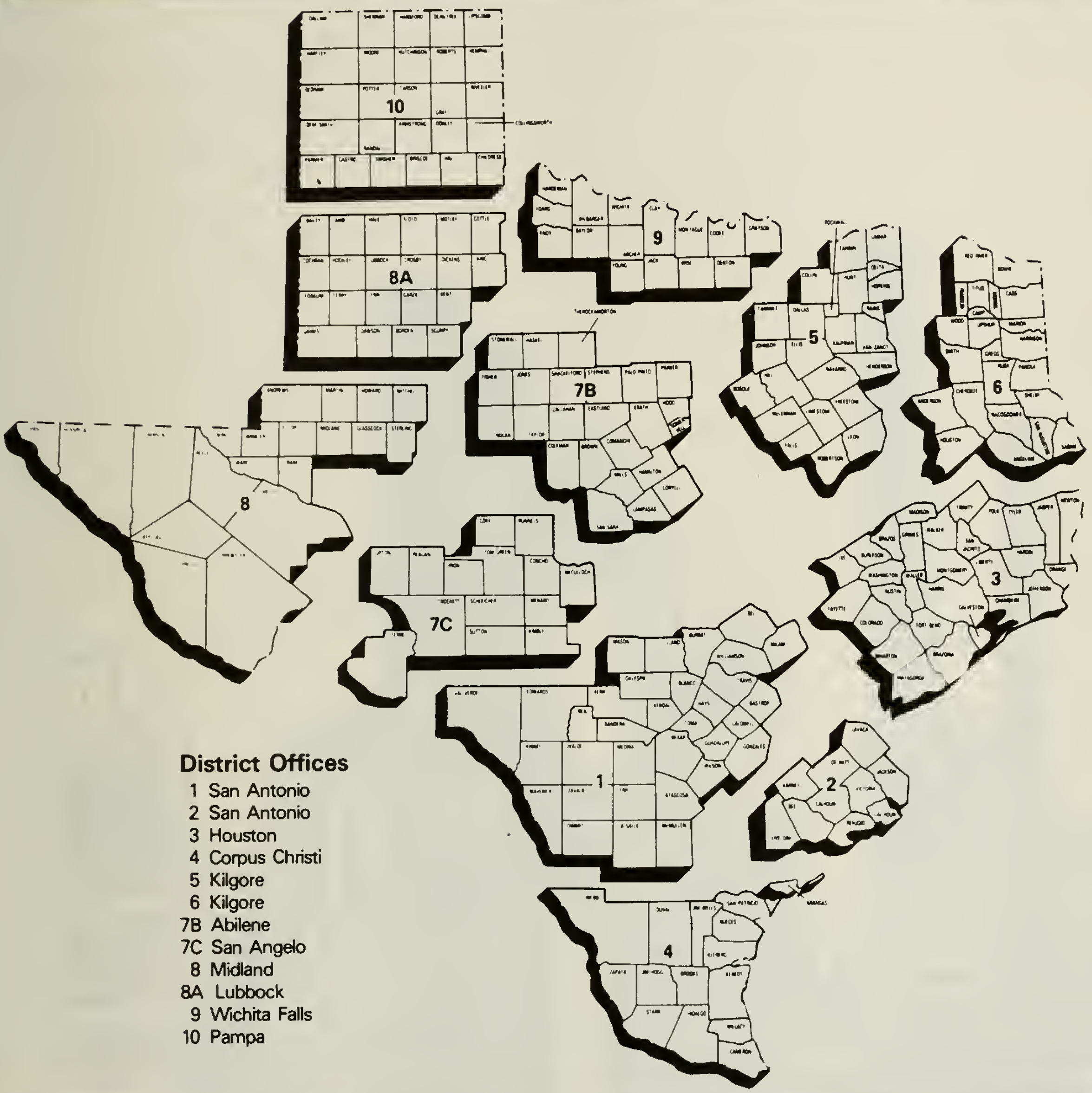
Petroleum Administration for Defense (PAD) Districts



Bureau of Mines Refining Districts



District Map Oil and Gas Division Railroad Commission of Texas

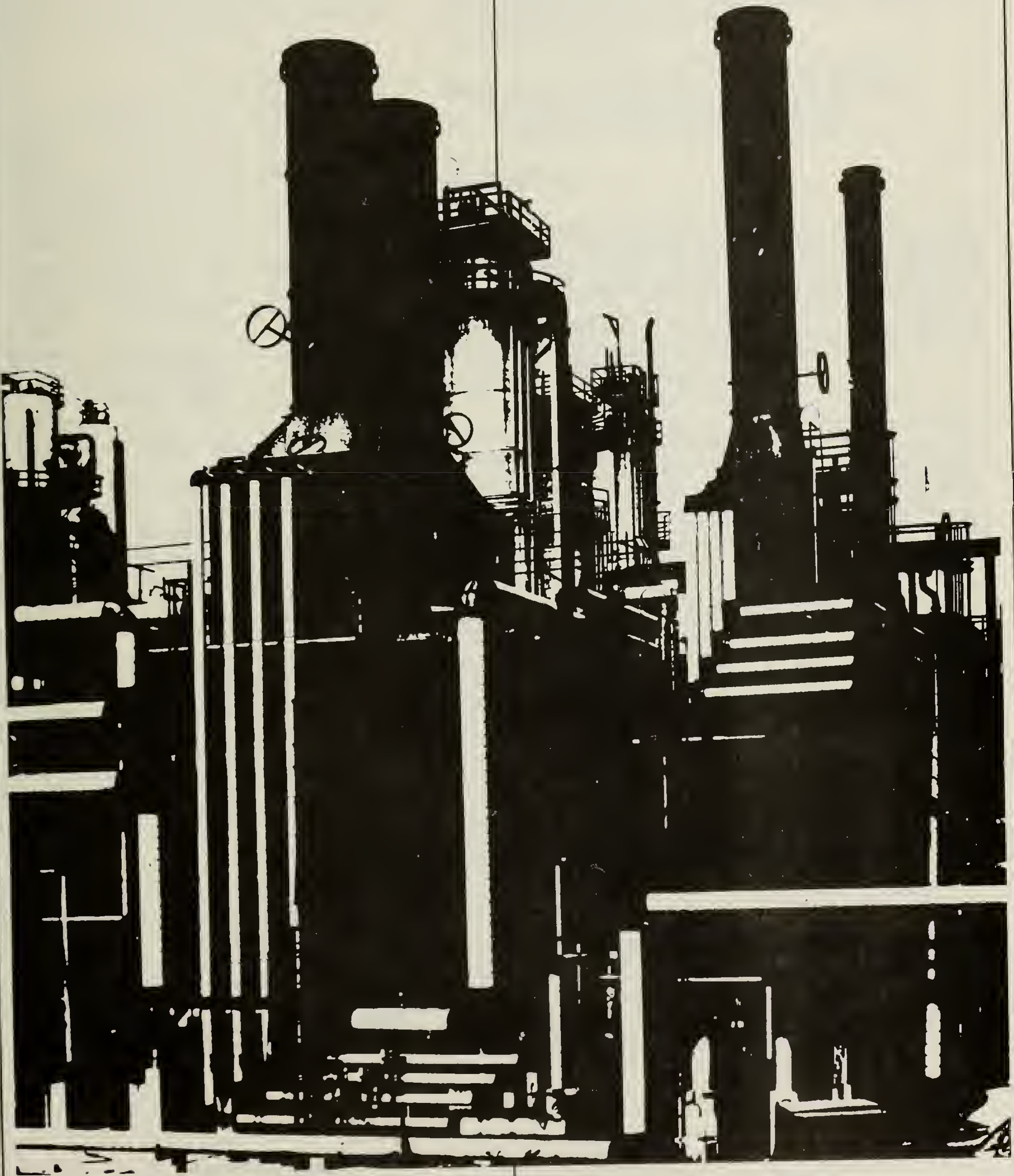


District Offices

1	San Antonio
2	San Antonio
3	Houston
4	Corpus Christi
5	Kilgore
6	Kilgore
7B	Abilene
7C	San Angelo
8	Midland
8A	Lubbock
9	Wichita Falls
10	Pampa

LIBRARY U. OF I. URBANA-CHAMPAIGN

Explanatory Notes



LIBRARY U. OF I. URBANA-CHAMPAIGN

Explanatory Notes

Note 1: Data Collection Methodology

ackground

eginning in January 1983, the Energy Information Ad-
inistration (EIA) unified its petroleum supply data col-
ction activities into the Petroleum Supply Reporting
ystem (PSRS). The PSRS represents a family of data
llection survey forms, data processing systems and
blication systems that have been consolidated to
hieve comparability and consistency throughout.
e primary focus of the consolidation has been to re-
se the weekly and monthly survey reporting forms to
sure consistency in form layout, preparation instruc-
ons, and definitions. As a result, a new set of survey
rms were implemented in January 1983. The follow-
g are the new form numbers and their corresponding
edecessor forms:

New Form Number	Name	Old Form Number
EIA-800	Weekly Refinery Report	EIA-161
EIA-801	Weekly Bulk Terminal Report	EIA-162
EIA-802	Weekly Product Pipeline Report	EIA-163
EIA-803	Weekly Crude Oil Stocks Report	EIA-164
EIA-804	Weekly Imports Report	EIA-165
EIA-805	Weekly Shipments from Puerto Rico to the United States Report	—
EIA-810	Monthly Refinery Report	EIA-87
EIA-811	Monthly Bulk Terminal Report	EIA-88
EIA-812	Monthly Product Pipeline Report	EIA-89
EIA-813	Monthly Crude Oil Report	EIA-90
ERA-60	Monthly Imports Report	ERA-60
EIA-815	Monthly Shipments from Puerto Rico to the United States Report	FEA-P133-M-0
EIA-816	Monthly Natural Gas Liquids Report	EIA-64
EIA-817	Monthly Tanker and Barge Movement Report	EIA-170

Forms EIA-800 through 805 comprise the Weekly Petroleum Supply Reporting System (WPSRS). This system is designed to collect basic refinery operations and product stock data for major products on a weekly basis. Data from the WPSRS are published in the *Weekly Petroleum Status Report (WPSR)* and are also used to calculate the preliminary statistics in the "Summary Statistics" section of the *Petroleum Supply Monthly (PSM)*. A description of the WPSRS survey forms follows in Note 1.1.

Forms EIA-810-813, 815-817 and ERA-60 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery operations data, refinery, bulk terminal and pipeline stocks data, crude oil and petroleum product imports data and movements of petroleum products and crude oil between PAD Districts data. These surveys are the primary source of data for the "Summary Statistics" and "Detailed Statistics" sections of the *PSM*. A description of MPSRS survey forms follows in Note 1.2.

Data are also obtained in magnetic tape form from the Bureau of the Census on a monthly basis. These tapes contain aggregated import and export statistics that are used in the preparation of the *PSM*. A description of the Census data follows in Note 1.3.

Note 1.1: Weekly Petroleum Supply Reporting System (WPSRS)

Background

The EIA first began publishing weekly petroleum supply statistics in April 1979 in response to the Iranian oil crisis. Initially, the published data were taken from the American Petroleum Institute (API) *Weekly Statistical Bulletin*. However, in January 1980 the EIA began to publish weekly statistics from its own surveys, with the exception of imports statistics which the EIA did not begin collecting until June 1980.

The weekly surveys collect data comparable to those collected on a monthly basis. Selected petroleum companies report weekly data to the EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports each shipment entering the United States. On Form EIA-805, a company shipping unfinished oils and finished petroleum products into the United States from Puerto Rico reports each shipment. Current weekly data and the most recent monthly data are used to estimate the totals that are published in the *Weekly Petroleum Status Report*.

Sample Frame

The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Sampled companies report data only for facilities in the 50 States and District of Columbia.

The sample for each survey is taken from the following universe:

EIA-800: Based on the EIA-810 universe, which includes all petroleum refineries in the United States and

its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and plants that produce finished motor gasoline through mechanical blending. The selected sample size is 215.

EIA-801: Based on the EIA-811 universe, which includes all bulk terminal facilities in the United States and its territories that have either a total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The selected sample size is 93.

EIA-802: Based on the EIA-812 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that transport only natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies that transport products covered in the weekly survey are included. The selected sample size is 65.

EIA-803: Based on the EIA-813 universe, which consists of all companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-804: Based on the ERA-60 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico. The selected sample size is 65.

EIA-805: Based on the EIA-815 universe, which includes all shippers of unfinished oils and petroleum products into the United States from Puerto Rico. Four companies report.

Sampling Method

The cut-off method is the sampling procedure used for all weekly surveys except the EIA-802, which uses the monthly universe in its entirety. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous 12-month period. Companies are chosen for the sampling, beginning with the largest and adding companies until the total sample covers 90 percent of the total for the previous time period for each product published in the *Weekly Petroleum Status Report.*

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. The report period closes each Friday at 7 a.m. All canvassed firms and terminal operations companies must file by 5 p.m. on the following Monday.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Estimation and Imputation

After company reports have been checked and enter into the weekly data base, weekly totals for given pr ucts are estimated by using the following formula.

The total reported by all companies for the most rece month (M_t) is divided by the amount reported by t sample of companies for the most recent month (M The result is multiplied by the amount reported by t sample of companies for the current week (W_s). The a swer, W_t, is an estimate of the amount that would ha been reported by all companies for the current week all companies reported each week.

$$W_t = \frac{M_t}{M_s}(W_s)$$

This procedure is used to estimate total weekly inpu to refineries and production.

To estimate stocks of finished products, the precedir procedure is followed separately for refineries, bulk te minals, and pipelines. Total estimates are formed b summing over establishment types.

Weekly imports data are highly variable on a compan by-company basis or a week-by-week basis. Therefor an exponentially smoothed ratio has been develope The estimate of weekly imports is the sum of th smoothed ratio multiplied by the weekly values and e timates for shipments from Puerto Rico. Imports c other oils includes an adjustment from Census data fo unlicensed products because of coverage difference between the monthly imports data and Census data.

Explicit imputation is done for companies which do nc respond in a given week. The imputed values are expc nentially smoothed means of recent reports from th specific company.

Response Rates

The response rate for the published estimates is usua ly between 95 and 98 percent.

Note 1.2: Monthly Petroleum Supply Reporting System (MPSRS)

Background

The MPSRS was implemented in January 1983 as the re sult of an extensive effort to integrate the collectio and processing of petroleum supply data that hav been collected on other survey forms for many years The collection of monthly petroleum supply statistic began as early as 1918 when the Bureau of Mines (BOM began collecting data on refinery operations and crud oil stocks and movements. The collection systems

were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movements of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS is the first effort to make them all consistent and comparable.

Respondent Frame

EIA-810: All petroleum refineries and plants that produce finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, the Hawaiian Foreign Trade Zone, and Guam. Approximately 313 respondents report on the EIA-810.

EIA-811: All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have a total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline, regardless of ownership of the material. Approximately 328 respondents report on the EIA-811.

EIA-812: All products pipeline companies that carry petroleum products (including interstate, intrastate and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 94 respondents report on the EIA-812.

EIA-813: All companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-815: All licensed importers and importers of record shipping petroleum products from Puerto Rico into the 50 States and the District of Columbia.

Import data from the ERA-60 and EIA-815 are integrated into the import statistics reported in the *PSM*.

EIA-816: All operators of facilities designed to extract liquid hydrocarbons from natural gas stream (natural gas processing plants) or to separate a hydrocarbon stream into its component products, i.e., propane, butane, natural gasoline, etc. (fractionators). Approximately 990 respondents report on the EIA-816.

EIA-817: All known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are about 50 respondents.

ERA-60: All licensed importers and importers of record importing crude oil and petroleum products into the United States and Puerto Rico. The respondent universe consisted of approximately 1,100 firms as of July 31, 1982. However, only a selected 250 importers must report each month regardless of import activity. All others must report only for a month in which they actually had imports. The respondent universe for this survey is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

EIA utilizes a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review industry publications such as the *Oil and Gas Journal* and *LP Gas Almanac* for information on facilities or companies going into operation or closing down. These are augmented by articles in newspapers, letters from respondents indicating changes in status and information received from survey systems operated by other offices.

Periodically an extensive survey study is conducted to completely refresh the frames. This involves consolidating information from every known source including State agencies, federal agencies (e.g., EPA, Corps of Engineers, Census Bureau, etc.), and private industry directories. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Completed forms are required to be postmarked by the 20th day following the end of the report month, with the exception of the EIA-815 and ERA-60 which are due 15 work days following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline, for their data. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed only for nonresponding companies that submitted reports the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by submission of actual data. Data for nonrespondents on the EIA-815 and 817, and ERA-60 are not imputed.

Response Rates

As of the filing deadline, the response rates of the EIA-810 through EIA-813 respondents is over 90 per-

cent. The response rate for the EIA-816 is over 85 percent and for the EIA-817 it is 98 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Names of companies that fail to file for 2 consecutive months are forwarded for further noncompliance action.

In July 1983, the ERA-60 survey had a response rate of 99.9 percent by the filing deadline. The universe was 1,100 firms at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard follow-up of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. In addition, response is cross-checked with response on the Petroleum Licensing Decrementation System (PLDS), a listing of each month's importers. The response rate is generally 98 to 99 percent by the time the data are first published.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Note 1.3: Census Import (IM-145) and Export (EM-522 and EM-594) Data

Background

Each month the EIA purchases magnetic tapes of aggregated import and export statistics from the Bureau of the Census. These data provide the only source of export statistics and are used to augment the import data collected by the EIA. Export statistics and import data from the Census tapes on liquefied petroleum gases and bonded ship bunkers are published in the *PSM*.

Import Statistics (IM-145)

Coverage

The import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise in-transit through the United States, when documented with Customs as an in-transit movement.

2. Shipments from anywhere to U.S. possessions and shipments from U.S. possessions to the United States. (U.S. possessions include Puerto Rico, the Virgin Islands, Guam, and American Samoa.)

3. U.S. merchandise that was held in foreign countries by the U.S. Armed Forces and is returned to the United States for the use of the Armed Forces.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501, 7505, and 7506).

Imported petroleum is reported as *Imports for Consumption*. Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics (EM-522 and EM-594)

Coverage

The export statistics reflect both government and nongovernment exports of domestic and foreign merchandise from the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. All shipments from U.S. possessions, regardless of whether the shipments are sent to the United States, to other U.S. possessions, or to foreign countries.

2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.

3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Exporters are required to file Shipper's Export Declarations with Custom's officials. The only exceptions are those exporters who have been authorized to submit data directly to the Bureau of Census on magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations.

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 2: Supply

The components of petroleum supply are field production, refinery production, imports, and stock withdrawal or addition:

Field Production is the sum of crude oil production (including lease condensate), natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation and revenue agencies. For further explanation, see Explanatory Note 3.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-816, *Monthly Natural Gas Liquids Report*. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.2.

Refinery Production of petroleum products is reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports of crude oil and petroleum products are reported monthly on Form ERA-60, *Report of Oil Imports into the United States and Puerto Rico*, and Form EIA-815, *Shipments of Refined Products (Including Unfinished Oils) from Puerto Rico to the United States*. In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501, 7505, and 7506. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum gases (LPG), where the Census data show a much higher level of imports than EIA data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and LPGs are not licensed products. Therefore, respondents that import only LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha- and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

Stock Withdrawal (+) or Addition (−) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the same month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (−) would represent a buildup of stocks and a reduction in the amount of petroleum supplies distributed for domestic consumption. For a description of survey forms used to make stock withdrawal or addition calculations see Explanatory Note 5.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition.

Crude oil supply is the sum of field production, imports and stock withdrawals or additions. Crude oil disposition is the sum of exports, refinery input, losses and product supplied. Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used.

Note 3: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the State conservation agencies, which collect crude oil production values for tax purposes. The U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of ten State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports

from the State conservation agencies and the U.S. Geological Survey. The ten States that do not report monthly values are Indiana, Kentucky, Missouri, Arkansas, Utah, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly COPS information becomes available. Table 11 of this publication provides information on crude oil production for the most recent month for which COPS values are available. In order to present more timely crude oil production values, the EIA's Dallas Field Office prepares a series of State level estimates which are based on historical production patterns and are summed to obtain the monthly crude oil production values shown in the summary statistics of this publication.

The individual State level estimates are either exponential curve fitted projections based on recent data or are constant level projections based on the average production rate during a recent time period. In some cases, adjustments are made to these estimates based on additional information on expected changes in production rates supplied by a State agency, a trade association, or an individual field operator.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Note 4: Disposition

The components of petroleum disposition are crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Crude Oil Losses is the sum of crude oil losses at refineries. Crude oil losses at refineries are reported on Form EIA-810, *Refinery Report*.

Refinery Inputs of crude oil, natural gas plant liquids, and other liquids are reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published inputs of unfinished oils and of motor and aviation gasoline blending components equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-810, by refineries located in these places.

Product Supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, minus crude oil losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) data were misreported or reported late, (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel oil. These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel oil were reported as either distillate or residual fuel oil and included in product supplied for these products.

Note 5: Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-810, *Monthly Refinery Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form EIA-800, *Weekly Refinery Report*, and on Form EIA-803, *Weekly Crude Oil Stocks Report*. Primary stocks of petroleum products are summed from data reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, Form EIA-810, *Monthly Refinery Report*, Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-812, *Monthly Product Pipeline Report*. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-800, *Weekly Refinery Report*, Form EIA-801, *Weekly Bulk Terminal Report*, and Form EIA-802, *Weekly Crude Oil Stocks Report*. For survey descriptions and other details, see Explanatory Notes 1.1 - 1.3.

Note 6: Average Stock Levels

The graphs displaying monthly stock levels of crude oil, motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases, and other products provide the user with recent data as well as a summary of data from January through December or from July through June for the most recent 3-year period. This summary takes the form of an *average range* that includes seasonal variation determined from a longer time period. The

erage range represents the historical pattern; it is not forecast.

nese curves are updated semiannually (On April 1 and ctober 1), by basing the *average ranges* on a more reent time period. Each 3-year data series is adjusted by ropping the first 6 months and including the most reent 6 months.

or each data series, the monthly seasonal factors are stimated by means of a seasonal adjustment techique developed at the Bureau of the Census (Census -11). The seasonal factors are assumed to be stable .e., unchanging from year to year) and additive. The sees is deseasonalized by subtracting the seasonal facor for the appropriate month from the reported stock evels. The intent of deseasonalization is to remove nly seasonal variation from the data. Thus, a deseaonalized series would contain the same trends and iregularities as the original data. For crude oil stocks, ne derived seasonal factors are very small relative to rude oil stock levels. Therefore, the seasonal factors or distillate fuel oil, residual fuel oil, liquefied petroeum gases and other products are derived using nonthly data from 1974-1980. For motor gasoline, the easonal factors are based on monthly data from 1975, 976, 1978, 1979 and 1980. In 1977, there was virtually o seasonal behavior in motor gasoline stocks. Monthy stock levels stayed at the same high level for the enire year. In addition, the seasonal patterns in 1973, 974 and 1977 were not representative of the recent ast, and these years were not used in the determinaion of seasonal patterns for motor gasoline stocks. Because of these differences in the year-to-year seasonal luctuation of motor gasoline, the evidence for the illusrated seasonal patterns for crude oil, distillate fuel oil, esidual fuel oil, liquefied petroleum gases and other products is stronger than is the evidence for the illusrated seasonal patterns for motor gasoline.

In some cases, these seasonal patterns do not show a smooth transition from month to month. For example, the June factor for residual fuel oil is slightly less than the May and July values, making a bump in the curve. As there is little difference in the magnitude of these seasonal factors, it is possible that this variation is due to the small number of observations (7 years) and the data variability.

After seasonal factors are derived, the most recent 3-year period (from January through December or from July through June) is deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard error of the deseasonalized 36 months is calculated adjusting for extreme data points. The width of the *average range* is twice this standard error.

The upper curve of the *average range* is defined as the average plus the seasonal factors plus the standard error. The lower curve is defined as the average plus the seasonal factors minus the standard error.

Note 7: Movements

Movements of crude oil between PAD Districts are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Petroleum product movements are reported on Forms EIA-817, *Monthly Tanker and Barge Movement Report*, and EIA-812, *Monthly Product Pipeline Report*. Net receipts is the difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge. For survey descriptions and other detail, see Explanatory Note 1.2.

Note 8: Preliminary Monthly Statistics

Weekly data (Forms EIA-800, 801, 802, 803, and 804) are used to estimate the most recent monthly values for the *Summary Statistics* section. Since some of the weekly reporting periods overlap two adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To estimate crude oil and petroleum product imports, crude oil input to refineries and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel oil, and residual fuel oil) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the two weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of the earlier of the two weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 3.

Note 9: Notes on Tables

Note 9.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (–), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.

- Natural Gas Plant Production is the sum of Natural Gas Liquids and Finished Petroleum Products Field Production in Table 4.

- Petroleum Products Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.

- Total Crude Oil and Petroleum Products Ending Stocks appear in thousand barrels in Table 2.

Note 9.2 **Crude Oil Supply and Disposition** statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (−), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.

- Crude Losses and Product Supplied appear as labeled in Table 4.

- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousand barrels in Table 1.

- Total Crude Oil Ending Stocks appear in thousand barrels in Table 2.

- Total Imports appear in Table 4.

Note 9.3 **Finished Motor Gasoline Supply and Disposition** statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (−), Exports, and Product Supplied appear as labeled in Table 4.

- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (−), Exports, and Product Supplied appear as labeled in Table 4.

- Ending Stocks appear in thousand barrels in Table 2.

Note 9.5 Liquefied Petroleum Gases Supply and Disposition statistics represent the aggregation of statistics on ethane, propane, butane, butane-propane mixtures, ethane-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stocks Withdrawal (+) or Addition (−), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.

- Ending stocks appear in thousand barrels in Table 2.

Note 9.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.

- Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (−), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3): Crude oil (including lease condensate) production for *Alaska*, *Lower 48 States*, and *Total U.S.* are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 3), and taking the difference to equal production in the Lower 48 States.

- Line (5): *SPR Imports* are reported on Survey Form ERA-60.

- Line (12): *Total Other Sources* equals crude oil stock withdrawal (+) or addition (−) plus unaccounted for crude oil minus crude losses in Table 2.

- Line (14): Natural gas plant liquids (NGPL) *Production* equals field production of natural gas liquids (NGL) plus field production of finished petroleum products in Table 2.

- Line (15): NGPL *Imports* equals the sum of the im-

LIBRARY U. OF I. URBANA-CHAMPAIGN

ports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.

- Line (16): NGPL *Stock Withdrawal (+) or Addition (−)* is equal to the sum of stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.

- Line (17) equals the sum of lines (14), (15), and (16).

- Line (18): Unfinished oils and gasoline blending components *Stock Withdrawal (+) or Addition (−)* equals stock withdrawal (+) or addition (−) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.

- Line (20): *Other Hydrocarbons and Alcohol New Supply* equals the field production of same in Table 2.

- Line (21): *Refinery Processing Gain* is a balancing item equal to total refinery production minus total refinery input in Table 2.

- Line (23): *Total Other Liquids* equals the sum of lines (18) through (22).

- Line (24): *Total Production of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil product supplied in Table 2.

- Line (25): *Gross Imports of Refined Products* equals imports of LPG plus imports of finished petroleum products in Table 2.

- Line (26): *Exports of Refined Products* equals exports of LPG plus exports of finished petroleum products in Table 2.

- Line (27): *Net Imports of Refined Products* equals the difference between lines (25) and (26).

- Line (28): *Total New Supply of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; minus crude oil product supplied plus imports of LPG and finished petroleum products; minus exports of LPG and finished petroleum products in Table 2.

- Line (29): *Refined Products Stocks Withdrawal (+) or Addition (−)* equals the sum of stock withdrawal (+) or addition (−) for LPG and finished petroleum products in Table 2.

- Line (30): *Total Petroleum Products Supplied for Domestic Use* equals total products supplied in Table 2.

- Lines (31) through (35) equal the respective products supplied in Table 2.

- Line (36): *Other Products Supplied* equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock use, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, unfinished oils, motor gasoline blending components, aviation gasoline blending components and miscellaneous products supplied in Table 2.

- Line (37): *Total Product Supplied* is equal to total products supplied in Table 2.

- The sum of lines (38) and (39), stocks of *Crude Oil and Lease Condensate (Excluding SPR)* and stocks held by the *Strategic Petroleum Reserve*, equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-813.

- Line (43): stocks of *Refined Products*, equals the sum of LPG and finished petroleum product stocks in Table 2.

Note 10: New Stock Basis

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

- Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).

- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,420; and 1982 - 1,462.

- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).

- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.
- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.
- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.
- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.
- Stock withdrawal calculations beginning in 1975, 1981, 1983 were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Products Supply and Disposition" table in the Summary Statistics, is now reported on a component basis (ethane, propane, normal butane, isobutane and pentanes plus). Most of these stocks will now appear in the "Liquefied Petroleum Gases Supply and Disposition" table of the Summary Statistics. This change will affect stocks reported and stock withdrawals in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 1983 - 108
- Other Petroleum Products: 1983 - 248

LIBRARY U. OF I. URBANA-CHAMPAIGN

Note 11: Stocks of Alaskan Crude Oil

Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 12: Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting systems.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings throughout 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. This difference increased to about 4 percent in 1979 and 5 percent in 1980. There are two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference—in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied. EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years. EIA has recently published a study of the quality of these FHWA data.[1]

---

[1] Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *Error Profile of the Motor Fuel Taxation Data used to Establish and Monitor State Emergency Conservation Targets* (Washington, D.C: December, 1981).

Finished Motor Gasoline Product Supplied on Old and New Basis (Thousand Barrels per Day)

	1979				1980			
	EIA Reported	API Recast	EIA Recast	FHWA[1]	EIA Reported	API Recast	EIA Recast	FHWA[1]
Jan	6,830	7,230	7,084-7,246	6,984	6,323	6,789	6,630-6,791	6,672
Feb	7,254	7,496	7,389-7,568	7,538	6,596	6,983	6,831-7,003	6,830
Mar	7,229	7,414	7,301-7,463	7,316	6,406	6,753	6,607-6,768	6,713
Apr	7,055	7,300	7,187-7,353	7,375	6,800	7,014	6,886-7,052	6,981
May	7,213	7,429	7,313-7,475	7,428	6,729	6,954	6,823-6,984	7,044
Jun	7,191	7,483	7,350-7,516	7,441	6,657	6,966	6,824-6,991	7,049
Jul	6,902	7,241	7,105-7,266	7,299	6,743	6,973	6,960	7,132
Aug	7,330	7,546	7,426-7,588	7,619	6,648	6,841	6,828	7,090
Sep	6,881	7,122	7,016-7,262	7,232	6,510	6,692	6,962	6,685
Nov	6,791	7,068	6,956-7,122	7,142	6,234	6,507	6,516	6,951
Dec	6,730	7,106	6,966-7,127	7,064	6,632	6,948	6,936	6,993
Average	7,034	7,302	7,183-7,347	7,309	6,579	6,882	6,806-6,889	6,925

[1] FHWA gasoline statistics published in their 1979 Table MF-33G, 08-06-80, contain aviation gasoline as well as motor gasoline. Only motor gasoline data are included in published 1980 data. Consequently, the 1979 data shown above were reduced by subtracting aviation gasoline product supplied quantities as published by EIA in the 1979 *Petroleum Statement Annual*. The 1980 FHWA data published in their 1980 Table MF-33GA, August 1981, did not require this adjustment.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oil produced by a refinery is shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981 this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1980 as published (adjusted) and on the same basis as 1981 statistics are now being completed (unadjusted) to permit comparison between 1980 and 1981 data series. Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Adjusted and Unadjusted Refinery Production, and Unadjusted Product Supplied of Distillate and Residual Fuel Oils, by Month for 1979 and 1980 (Thousand Barrels Per Day)

1979

	Distillate Fuel Oil				Residual Fuel Oil			
Month	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,043	3,108	65	4,646	1,912	1,946	34	3,594
Feb.	2,888	2,945	57	4,869	1,792	1,822	30	3,625
Mar.	3,019	3,026	7	3,671	1,719	1,723	4	3,243
Apr.	2,945	2,978	32	3,048	1,639	1,656	17	2,524
May	3,066	3,093	27	3,025	1,586	1,600	14	2,517
Jun.	3,153	3,187	35	2,743	1,548	1,566	18	2,601
Jul.	3,305	3,344	38	2,601	1,575	1,594	20	2,471
Aug.	3,321	3,359	38	2,799	1,584	1,603	20	2,570
Sep.	3,354	3,306	– 48	2,599	1,627	1,602	– 25	2,584
Oct.	3,251	3,217	– 34	3,085	1,629	1,612	– 17	2,523
Nov.	3,239	3,200	– 39	3,208	1,736	1,716	– 20	2,795
Dec.	3,221	3,238	17	3,725	1,894	1,903	9	3,022
Average	3,152	3,169	16	3,327	1,687	1,695	8	2,834

LIBRARY U. OF I. URBANA-CHAMPAIGN

1980

	Distillate Fuel Oil				Residual Fuel Oil			
Month	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,013	3,093	80	3,794	1,771	1,812	41	3,108
Feb.	2,766	2,888	122	3,834	1,773	1,836	63	3,168
Mar.	2,557	2,690	133	3,312	1,584	1,652	68	2,726
Apr.	2,460	2,554	94	2,729	1,595	1,643	48	2,492
May	2,474	2,610	136	2,538	1,509	1,579	70	2,305
Jun.	2,646	2,721	75	2,392	1,575	1,613	38	2,359
Jul.	2,689	2,783	94	2,343	1,480	1,528	48	2,339
Aug.	2,461	2,582	121	2,258	1,444	1,506	62	2,348
Sep.	2,686	2,726	40	2,627	1,495	1,516	21	2,380
Oct.	2,589	2,650	61	2,981	1,512	1,543	31	2,258
Nov.	2,703	2,823	120	3,069	1,579	1,641	62	2,513
Dec.	2,891	3,052	161	3,776	1,660	1,743	83	2,762
Average	2,661	2,764	103	2,969	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Note 13: NGL Import/Export Algorithms

Beginning in January 1984, the Energy Information Administration (EIA) implemented changes in the reporting of natural gas liquid (NGL) supply data, moving from a nine-product slate to a five-component slate that corresponds to industry record-keeping practices. Changes could not be made to the import and export systems. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm is based on information gathered from the larger importers of NGL, who were asked to provide component analyses of the products they imported during the first six months of 1983. The percentages shown in Exhibit 1 are derived from the weighted averages of the data provided by the importers.

EXHIBIT 1. ALGORITHMS FOR ALLOCATING NGL IMPORTS

PRODUCT SLATE	*Ethane*	*Propane*	*Normal butane*	*Isobutane*	*Pentanes Plus*
Natural Gasoline & Isopentane (EIA-814)					100%
Plant Condensate (EIA-814)					100%
Ethane (IM-145)	100%				
Butane (IM-145)			60%	40%	
Butane-Propane Mixtures (IM-145)		40%	35%	20%	5%
Ethane-Propane Mixtures (IM-145)	80%	20%			

Exports

The export algorithm is based on information gathered from the larger exporters of NGL, who were asked to provide component analyses of the products they exported during 1983. The percentages shown in Exhibit 2 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by PAD of exportation, due to the wide variation of components in the mixed streams.

EXHIBIT 2. ALGORITHMS FOR ALLOCATING NGL EXPORTS

		EIA Component Slate				
PRODUCT	*P.A.D.*	*Ethane*	*Propane*	*Normal Butane*	*Isobutane*	*Pentanes Plus*
Ethane	All	100%				
Propane	All		100%			
Butane	All			100%		
Mixed Streams	I, IV, V		40%	60%		
	II	30%	25%	15%	15%	15%
	III		80%	20%		

☆ U.S. GOVERNMENT PRINTING OFFICE: 1984-421-766:115

LIBRARY U. OF I. URBANA-CHAMPAIGN

DOE F 1340.1
(2-80)

Energy Information Administration

GPO SUBSCRIPTION ORDER FORM

A

(For use in ordering EIA Publications only – Read Ordering Information Section before completing form.)

SEND ORDER FORM TO: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402

Enclosed is $ ____________ ☐ Check

☐ Money order, or charge to my Deposit Account No.

☐☐☐☐☐☐☐ – ☐

Order No. ____________

VISA

MasterCard

Credit Card Orders Only

Total charges $ ____________ Fill in the boxes below

Credit Card No. ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Expiration Date Month/Year ☐☐☐☐ ☐ VISA ☐ Master Card

PLEASE PRINT OR TYPE

NAME AND ADDRESS

NAME – FIRST, LAST

COMPANY NAME OR ADDITIONAL ADDRESS LINE

STREET ADDRESS

CITY

STATE

ZIP CODE

(OR COUNTRY)

FOR OFFICE USE ONLY

QUANTITY	CHARGES
........ENCLOSED	....
........TO BE MAILED	....
........SUBSCRIPTIONS	....
POSTAGE	....
FOREIGN HANDLING	....
MMOB	....
OPNR	....
........UPNS	
........DISCOUNT	
........REFUND	

PRINT OR TYPE TITLES OF ITEMS YOU WISH TO RECEIVE ON A SUBSCRIPTION BASIS:

GPO [illegible]

LIBRARY U. OF I. URBANA-CHAMPAIGN

LIBRARY U. OF I. URBANA-CHAMPAIGN

Energy Information Administration
Forrestal Building
Washington, D.C. 20585

FIRST—CLASS MAIL
POSTAGE & FEES PAID
U.S. DEPT. OF ENERGY
PERMIT NO. G 20

FIRST CLASS MAIL

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

LIBRARY U. OF I. URBANA-CHAMPAIGN

Dcc.
3. 11/5.
34/6

BOOKSTACKS
DOCUMENTS

etroleum
upply
onthly

ne 1984

olished:
gust 1984

Energy Information Administration
Washington, D.C.

See Notice
Inside Cover

This publication is available from the Superintendent of Documents, U.S. Government Printing Office (GPO). Ordering information and purchase of this and other Energy Information Administration (EIA) publications may be obtained from the GPO or the EIA's National Energy Information Center (NEIC). Questions on energy statistics should be directed to the NEIC. Addresses and telephone numbers appear below. An order form is enclosed for your convenience.

National Energy Information Center, EI-20
Energy Information Administration
Forrestal Building
Room 1F-048
Washington, D.C. 20585
(202) 252-8800

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
(202) 783-3238

Released for printing: August 23, 1984

LIBRARY U. OF I. URBANA-CHAMPAIGN

IMPORTANT NOTICE

As required by Government regulation, the Energy Information Administration (EIA) is conducting its annual publications mailing list review. If you are on the EIA mailing list, you should have received an important postcard. You must return it to us to remain on the EIA mailing list. If you have not received the postcard, please contact the National Energy Information Center at 202-252-8800

Note: This notice does not apply to subscriptions which have been purchased from the Government Printing Office (GPO).

etroleum
upply
onthly

e 1984

lished:
ust 1984

Energy Information Administration
Washington, D.C. 20585

DOE/EIA-0109(84/06)
Dist. Category UC-98

DEPOSITORY
SEP 04 1984
UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

his report was prepared by the
nergy Information Administration,
e independent statistical and
nalytical agency within the De-
artment of Energy. The informa-
on contained herein should not
construed as advocating or
ecessarily reflecting any policy po-
tion of the Department of Energy
any other organization.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Energy Information Administration
Electronic Publication System (EPUB)
User Instructions

Selected Weekly Petroleum Status Report (WPSR) and Petroleum Supply Monthly (PSM) statistics are now availab
electronically on the Energy Information Administration (EIA) Computer Facility. Public access to these machin
readable statistics is possible by dialing (202) 252-4964 or (202) 252-4764 for 300 baud or 1200 baud line speeds. Cor
munications are Asynchronous and require a standard ASCII-type terminal. There is no charge for this service. A
though there is not a required password, you will be requested to use your telephone number as a user identifie
This service is available from 8 a.m. to 11 p.m. weekdays and 10 a.m. to 6 p.m. on weekends and holidays (Washin
ton, D.C. time). The weekly data will be updated with the current week's statistics after 5 p.m. on Wednesday of eac
week (Thursday in the event of a holiday). Monthly data for the current available month will be updated by 5 p.m. c
the 24th of each month. Questions or comments should be directed to T.C. Swann at (202) 252-1155.

Access Instructions:

1) DIAL (202) 252-4964 or (202) 252-4764

2) HIT RETURN (CARRIAGE RETURN) ONCE TO ESTABLISH BAUD RATE AND TYPE **LOGON** TO LINK TO EIADIAL FOLLOWED BY A SECOND RETURN

```
LOGON
***                                                                    ***
***                        WELCOME TO THE                              ***
***               ENERGY INFORMATION ADMINISTRATION                    ***
***                 ELECTRONIC PUBLICATION SYSTEM                      ***
***                                                                    ***
```

3) SELECT THE STATISTICS YOU WISH FROM THE MENU

```
THE FOLLOWING REPORTS ARE AVAILABLE.
    WPSR—WEEKLY PETROLEUM STATUS REPORT
    PSMR—PETROLEUM SUPPLY MONTHLY
PLEASE ENTER THE DESIRED REPORT ID. . .
```

TYPE **WPSR** OR **PSMR**

4) ENTER YOUR 10 DIGIT PHONE NUMBER

```
$WP1081 LOGON IN PROGRESS AT 13:23:22 ON MAY 9, 1984
PLEASE ENTER YOUR PHONE NUMBER. . .
```

5) YOU WILL THEN SEE A BANNER WHICH SHOWS THE REPORT YOU HAVE SELECTED AND PAUSES TO ALLOW AMPLE TIME TO GET READY TO RECEIVE OUTPUT

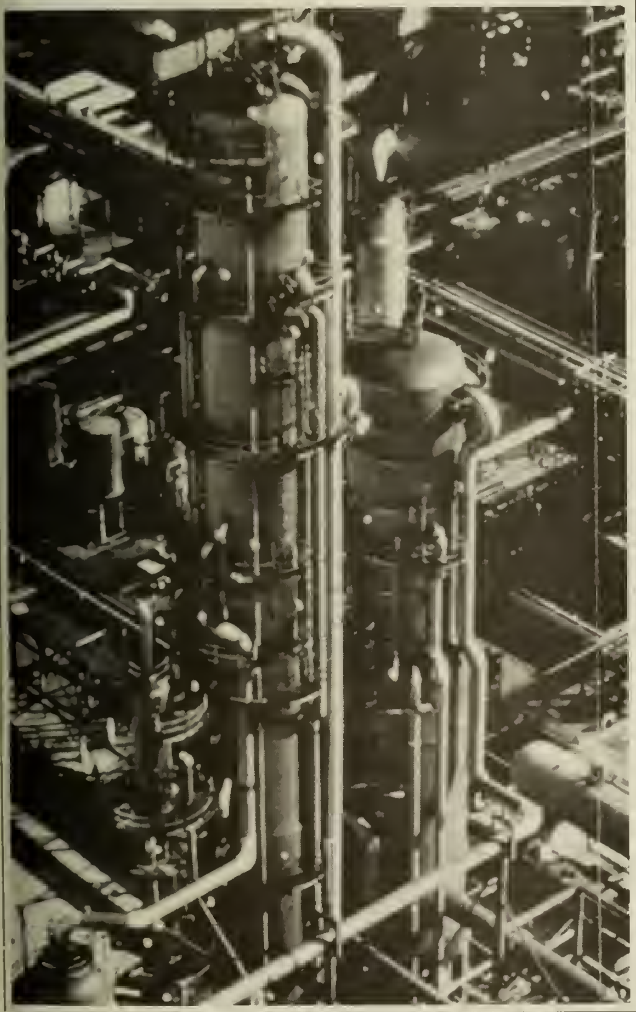
```
YOU HAVE SELECTED WEEKLY STATISTICS FROM THE WEEKLY PETROLEUM
REPORTING SYSTEM. THIS SYSTEM WILL DISPLAY THE LATEST U.S.
PETROLEUM BALANCE SHEET AND THE MOST RECENT 5 WEEKS OF WEEK-
LY PETROLEUM STATUS REPORT DATA. PLEASE TURN ON YOUR PRINTER
NOW IF YOU WISH TO OBTAIN HARD COPY OUTPUT.

              (PRINTING WILL BEGIN IN 20 SECONDS)
```

Contents

This Month in the PSM

This issue of the *Petroleum Supply Monthly* features a "Mid-Year Petroleum Review," beginning on page xi and focusing on major petroleum supply developments in the first half of 1984 and the outlook for the remainder of the year. The article discusses changes in consumption, domestic crude oil production, exploration and development activity, refinery operations, foreign trade, stocks (including the Strategic Petroleum Reserve), and prices. A special summary of changes in petroleum imports appears on page xv. Also in this issue is an article focusing on "Timeliness and Accuracy of Selected Petroleum Supply Data Series" for statistics published in 1983. This article begins on page xviii, and is accompanied by a box describing the Petroleum Supply Reporting System.



Page

Petroleum Focus

Petroleum Supply Summary ix
Mid-Year Petroleum Review xi
Timeliness and Accuracy of Selected Petroleum Supply Data Series xviii

Summary Statistics—through July 1984

Crude Oil and Petroleum Products Overview.. 2
Crude Oil Supply and Disposition 6
Crude Oil and Petroleum Products Imports ... 8
Finished Motor Gasoline Supply and Disposition. 11
Distillate Fuel Oil Supply and Disposition 13
Residual Fuel Oil Supply and Disposition 15
Liquefied Petroleum Gases Supply and Disposition. 17
Other Petroleum Products Supply and Disposition. 18
Sources 19

Detailed Statistics—June 1984

National Statistics

1. U.S. Petroleum Balance 23
2. Supply and Disposition of Crude Oil and Petroleum Products 24
3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products. 25
4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products. 26
5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products 27

Supply and Disposition of Crude Oil and Petroleum Products by PAD Districts

6. PAD District I. 28
7. PAD District II 29
8. PAD District III 30
9. PAD District IV 31
10. PAD District V. 32

Production of Crude Oil and Lease Condensate

11. Production by PAD District and State, April 1984 33

Natural Gas Processing

12. Plant Production of Petroleum Products by PAD Districts 34

Refinery Operations by PAD District

13. Refinery Input of Crude Oil and Petroleum Products. 35
14. Refinery Production of Petroleum Products 36
15. Percent Refinery Yield of Petroleum Products 37

Contents (Continued)

Page

Imports and Exports of Crude Oil and Petroleum Products

16. Imports by PAD District 38
17. Year-to-Date Imports by PAD District 39
18. Imports by Source and PAD District 40
19. Year-to-Date Imports by Source and PAD District 44
20. Exports by PAD District 49
21. Year-to-Date Exports by PAD District 50
22. Exports by Destination 51
23. Year-to-Date Exports by Destination 53

Stocks

24. Stocks of Crude Oil and Petroleum Products by PAD District 55
25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State 60

Transportation of Crude Oil and Petroleum Products Between PAD Districts

26. Movements by Pipeline, Tanker, and Barge 61
27. Movements by Pipeline. 61
28. Movements by Tanker and Barge. 62
29. Net Movements by Pipeline, Tanker, and Barge. 63

Heavy Fuel Oils by Sulfur Content

30. Production of Residual Fuel Oil. 64
31. Stocks of Residual Fuel Oil 64
32. Movements by Tanker and Barge. 64
33. Imports of Residual Fuel Oil by Country of Origin 65
34. Imports of Residual Fuel Oil by State of Entry 66

Glossary

Definitions of Petroleum Products and Others Terms. 69
Bureau of Mines Petroleum Refining Districts and PAD Districts 75

Maps

PAD Districts. 76
Bureau of Mines Refinery Districts. 76
District Map, Oil and Gas Division, Railroad Commission of Texas. 77

Page

Explanatory Notes

1. Data Collection Methodology 81
   1.1 Weekly Petroleum Supply Reporting System (WPSRS). 81
   1.2 Monthly Petroleum Supply Reporting System (MPSRS). 82
   1.3 Census Import (IM-145) and Export (EM-522 and EM-594) Data 84
2. Supply. 85
3. Domestic Crude Oil Production. 85
4. Disposition. 86
5.. Stocks. 86
6. Average Stock Levels 86
7. Movements. 87
8. Preliminary Monthly Statistics. 87
9. Notes on Tables. 87
10. New Stock Basis 89
11. Stocks of Alaskan Crude Oil. 90
12. Changes in Petroleum Industry Reporting . 90
13. NGL Import/Export Algorithm 93

Figures

Petroleum Overview 4
Petroleum Products Supplied 4
Crude Oil Supply and Disposition. 5
Crude Oil Ending Stocks 5
Motor Gasoline Supply and Disposition 10
Motor Gasoline Ending Stocks 10
Distillate Fuel Oil Supply and Disposition. 12
Distillate Fuel Oil Ending Stocks 12
Residual Fuel Oil Supply and Disposition 14
Residual Fuel Oil Ending Stocks 14
Liquefied Petroleum Gases Supply and Disposition 16
Liquefied Petroleum Gases Ending Stocks. . . . 16

Photo Credit

Conoco, Inc., page iii (Courtesy of American Petroleum Institute Photo Library).

LIBRARY U. OF I. URBANA-CHAMPAIGN

Articles

Feature articles on energy-related subjects are frequently included in this publication. The following articles have appeared in previous issues of the *PSM*.

U.S. Petroleum Developments: 1981	Mar 1982
Timeliness and Accuracy of Selected Monthly Petroleum Supply Data	Apr 1982
Focus on Motor Gasoline Statistics	Apr 1982
Focus on Crude Oil Production Data	Apr 1982
Motor Gasoline Outlook: Summer 1982	May 1982
Gasoline Use in the United States	May 1982
The Impact of Changing Vehicle Characteristics and Use on Motor Gasoline Demand	May 1982
1982 EIA Petroleum Refinery Survey Results	Jun 1982
What is a Refinery?	Jun 1982
Mid-year Petroleum Supply Review	Jul 1982
Petroleum Imports and Exports	Aug 1982
Refinery Shutdowns During 1982	Sep 1982
Distillate Fuel Oil Outlook: Winter 1982-83	Sep 1982
Recent Trends in Fuel Oil	Sep 1982
Futures Trading on Heating Oil Markets	Sep 1982
U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1981 Annual Report	Oct 1982
Trends in Domestic Crude Oil Production and Reserves	Nov 1982
Major Energy Companies' Investment and Resource Development Patterns, 1974-80	Nov 1982
U.S. Petroleum Developments: 1982	Jan 1983
Trends in Petroleum Products Consumption, 1971-1982	Jan 1983
Refinery Shutdowns During 1982	Feb 1983
U.S. Petroleum Imports and Exports	Feb 1983
Petroleum Supply Reporting System Overview	Mar 1983
Summer Gasoline Overview	May 1983
Principal Factors Influencing Motor Gasoline Demand	May 1983
U.S. Petroleum Refinery Trends and Outlook	Jun 1983
Mid-Year Petroleum Review	Jul 1983
Timeliness and Accuracy of Selected Petroleum Supply Data Series	Aug 1983
Distillate Fuel Oil Overview: Winter 1983-84	Sep 1983
Fuel Oil Trends	Sep 1983
U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves	Sep 1983
LPG Market Trends	Nov 1983
National Petroleum Council Revises Minimum Operating Inventory Estimates	Dec(1) 1983
U.S. Petroleum Developments: 1983	Dec(2) 1983
An Overview of Petroleum Transportation	Dec(3) 1983
EIA Revises Petroleum Supply Reporting System	Jan 1984
Trends in Petroleum Product Consumption	Jan 1984
Petroleum Consumption in the Industrial Sector	Jan 1984
Motor Gasoline Outlook for Summer 1984	Feb 1984
Recent Motor Gasoline Trends	Feb 1984
New Patterns Emerging in U.S. Petroleum Imports and Exports	Feb 1984
Refinery Capacity Trends and Outlook	Apr 1984

LIBRARY U. OF I. URBANA-CHAMPAIGN

Petroleum Focus

LIBRARY U. OF I. URBANA-CHAMPAIGN

Petroleum Supply Summary

	July			Cumulative January Through July		
Average Volume for Period (Million Barrels Per Day)	**1984**	**1983**	**% Change**	**1984**	**1983**	**% Change**
Products Supplied						
Motor Gasoline	7.1	6.8	4.8	6.7	6.5	2.2
Distillate Fuel Oil	2.6	2.3	13.5	2.9	2.6	11.9
Residual Fuel Oil	1.0	1.3	– 19.7	1.5	1.4	0.5
Other Products	4.6	4.7	– 1.7	4.7	4.3	7.9
Total	15.3	15.0	1.9	15.7	14.9	5.4
Crude Inputs to Refineries	12.2	12.4	– 1.2	12.0	11.5	4.5
Production						
Crude Oil, Natural Gas Liquids, and Other[1]	10.4	10.2	1.9	10.4	10.3	0.9
Imports						
Crude Oil[2]	3.3	3.6	– 8.0	3.2	2.8	12.2
SPR	0.3	0.3	12.4	0.2	0.2	– 7.1
Products	1.4	1.9	– 23.9	2.0	1.6	23.7
Total	5.0	5.7	– 12.2	5.4	4.7	15.2
Exports						
Crude Oil	0.2	0.1	53.1	0.2	0.2	16.9
Products	0.6	0.4	50.7	0.5	0.6	– 15.5
Total	0.9	0.6	51.3	0.7	0.8	– 8.6
Stock Withdrawal						
Crude Oil[2]	0.1	0.5	—	(s)	0.1	—
Products	– 0.1	– 0.9	—	(s)	0.3	—
Stocks at End of Period (Million Barrels)						
Crude Oil						
SPR	423	341	24.1			
Other	353	335	5.5			
Total	776	676	14.9			
Products						
Motor Gasoline[3]	236	231	2.2			
Distillate Fuel Oil	125	131	– 4.1			
Residual Fuel Oil	47	52	– 9.4			
Other	328	338	– 2.7			
Total	736	751	– 1.9			
Total Crude Oil and Products	1,512	1,426	6.0			

1 Includes alcohol and other hydrocarbon liquids.
2 Excludes Strategic Petroleum Reserve (SPR).
3 Including blending components.
(s) = Less than 0.05 million barrels per day.
NOTE: Percent changes are based on unrounded values. July 1984 data are estimates based on weekly data, except for exports, NGL production, other hydrocarbons, and alcohol which are June 1984 monthly values. Totals may not be equal to sum of components due to independent rounding.
Source: Energy Information Administration, *Petroleum Supply Monthly*, June 1984.

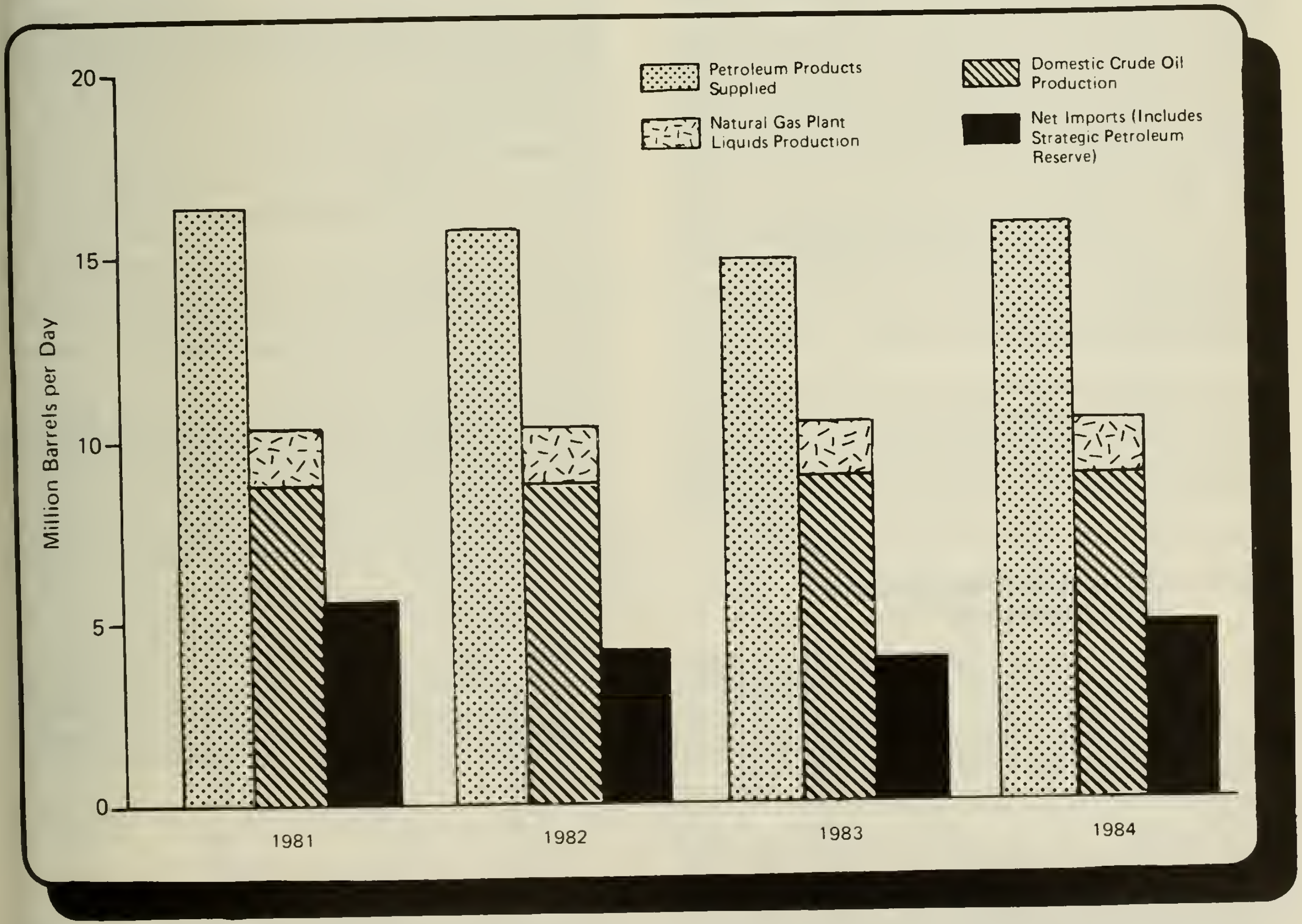
LIBRARY U. OF I. URBANA-CHAMPAIGN

Mid-Year Petroleum Review

Petroleum consumption in the United States during the first half of 1984 continued the upward trend which began during the last half of 1983. At that time, a turnaround in economic conditions in the United States contributed to the reversal in the 5-year downward trend in consumption. During the first 6 months of 1984, continued improvement in the economy, combined with a much colder first quarter than in 1983, spurred the increase in consumption. To supplement stable crude oil production in meeting the higher demand for petroleum products, net imports of crude oil and products increased. Motor gasoline stocks increased through May, against the usual seasonal trend, while distillate fuel oil stocks declined dramatically before replenishment began in June. Fewer refineries were operating during the first half of 1984 than during the first half of last year. This decrease in capacity, combined with higher gross crude oil inputs, resulted in improved refinery utilization. Crude oil prices remained stable, while motor gasoline prices declined from the comparable 1983 period, and heating oil prices increased. Rotary rig activity, well completions, and seismic geophysical activity showed moderate increases over the corresponding 1983 levels.

NOTE: Unless otherwise referenced, data in this article were taken from the Summary Statistics section of this report, *Petroleum Supply Monthly*, DOE/EIA-0109(84/06); *Petroleum Supply Annual 1983*, DOE/EIA-0340(83) Volumes 1 and 2; *Weekly Petroleum Status Report*, August 16, 1984, DOE/EIA-0208(84/33) and previous issues; *Petroleum Marketing Monthly*, DOE/EIA-0380(84/06); and *Short-Term Energy Outlook*, May 1984, DOE/EIA-0202(84/2Q). Where final data were not available, estimates were based on preliminary data.

Figure 1. Petroleum Supply, January - June 1981, 1982, 1983, and 1984



Source: Energy Information Administration, "Petroleum Supply Annual," 1981, 1982, 1983; and "Petroleum Supply Monthly," 1984.
Note: 1984 data are preliminary.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Consumption

During the first half of 1984, U.S. petroleum consumption (measured as "petroleum products supplied") continued the upward trend which began during the last half of 1983, when consumption increased 4 percent over the first half of last year. Thus far in 1984, consumption of 15.8 million barrels per day was about 6 percent higher than for the comparable months in 1983 (see Figure 1). The continued economic improvement and a winter that was 12 percent colder than the previous one were the primary reasons for increased consumption this year. Consumption of all major products was higher this year than for the comparable 1983 period.

Motor gasoline consumption of 6.6 million barrels per day during the first half of 1984 was about 2 percent higher than for the same period in 1983 (see Table 1). The relatively high primary stock levels helped to hold motor gasoline prices close to or below the 1983 averages. Increased travel this year, combined with stable prices, contributed to the higher consumption, despite continued vehicle efficiency improvements. Record imports of motor gasoline supplemented the slightly higher refinery production to satisfy the higher motor gasoline demand during the first half of 1984.

Distillate fuel oil consumption jumped to 3.0 million barrels per day during the first half of 1984. This was the highest consumption level since the same period in 1979, and was 12 percent above the comparable 1983 level. Despite increased refinery production and higher imports, large withdrawals were needed from already low inventory levels during several months this year. The large withdrawals were necessary: first, to satisfy the surge in heating oil demand during the unusually cold winter; and second, to accommodate the increased demand for diesel fuel for transportation, construction, and farming. The high rate of consumption combined with low primary inventories, resulted in shortages in some areas,[1] and kept distillate fuel oil prices higher than during most of 1983.

Residual fuel oil consumption during the first half of 1984 was 1.5 million barrels per day, about 4 percent higher than the comparable 1983 level. This was also the first increase since 1979. Much of this increase was satisfied by higher imports of residual fuel oil, primarily from the Virgin Islands (see box on page xv). Consump tion during the first quarter was much higher than du ing the second quarter, as unusually cold weathe brought a sharp increase in heating and electric utilit needs.[2] As temperatures moderated in the second qua ter, consumption dropped 25 percent from the preced ing quarter. Second quarter consumption was more i keeping with the downward trend of recent years, at percent below the level during the second quarter o 1983. The high price of residual fuel oil relative to price of competing fuels has somewhat limited the effects o economic recovery on residual fuel oil consumption.

Consumption of liquefied petroleum gases (LPG's) du ing the first half of 1984 averaged 1.6 million barrels pe day, about 8 percent higher than during the first half o 1983. As with heating oils, the unusually cold winte this year contributed to the higher demand. In addition recovery in the petrochemical industry accounted fo much of the increased demand for LPG's this year. Both imports and stock withdrawals were higher tha for the comparable 1983 period, to accommodate in creased consumption.

Supply

Domestic Production

Domestic crude oil production during the first half o 1984 was 8.7 million barrels per day, unchanged from the comparable 1983 level, but slightly higher than i 1981 and 1982.

Refinery Operations

Inputs to Refineries

The higher demand for petroleum products during the first half of 1984 required an increase in refinery pro duction, which was about 7 percent higher than for the same period last year. To accommodate this increase

---

[1] *The Oil Daily*, May 25, 1984, p. 8.

[2] Energy Information Administration, *Electric Power Monthly* DOE/EIA-0226 (84/05) (Washington, D.C., July 1984), Tables 1 and 16.

[3] *The Oil Daily*, May 21, 1984, p. C3.

Table 1. Products Supplied Summary (Million Barrels per Day)

Products Supplied	First 6 months 1984	First 6 months 1983	Percent Change	Projected 1984	Actual 1983	Projected Percent Change
Motor Gasoline	6.6	6.5	1.8	6.6	6.6	0.3
Distillate Fuel Oil	3.0	2.7	11.5	2.9	2.7	6.3
Residual Fuel Oil	1.5	1.5	3.5	1.4	1.4	0.0
LPG's	1.6	1.5	7.8	4.7	1.5	6.3
Other Products	3.0	2.7	11.0		3.0	
Total	15.8	14.9	6.0	15.6	15.2	3.1

Totals may not equal sum of components due to independent rounding.
Sources: Energy Information Administration, *Petroleum Supply Annual*, 1983; *Petroleum Supply Monthly*, 1984; *Short-Term Energy Outlook*, May 1984.

Table 2. Refinery Operations (Million Barrels per Day)

Operations	Jan.-June 1982	Jan.-June 1983	Jan.-June 1984
Refinery Input			
Crude Oil	11.6	11.4	12.0
Natural Gas Liquids	0.5	0.4	0.5
Other Liquids	0.5	0.4	0.5
Total Input	12.7	12.2	12.9
Refinery Output			
Finished Motor Gasoline	6.2	6.2	6.4
Distillate Fuel Oil	2.5	2.3	2.6
Residual Fuel Oil	1.2	0.9	0.9
Other Products	3.3	3.3	3.6
Total Output	13.2	12.6	13.6

Totals may not equal sum of components due to independent rounding.
Sources: Energy Information Administration, *Petroleum Supply Annual,* 1982, 1983; *Petroleum Supply Monthly*, 1984.

crude oil inputs to refineries rose about 6 percent from comparable 1983 levels, while inputs of other liquids remained close to the levels of recent years (see Table 2).

The average sulfur level of crude oil inputs to refineries has been increasing. This increase is related to a change in the quality of crude oils imported in recent years. Before 1982, between 30 and 40 percent of U.S. imports were lighter, low-sulfur crude oils from Saudia Arabia and Nigeria. These countries now provide about 20 percent of U.S. imports, while the portion imported from Mexico, a producer of heavier crude oils with higher sulfur content, has doubled to about 20 percent. In 1981 the average sulfur level of crude oil inputs was 0.87 percent. During the first half of 1983, the average was 0.89 percent, and this year it increased to an average of 0.94 percent.

Refinery Capacity Utilization

During the first half of 1984, the refinery utilization rate averaged 76 percent, compared with 69 percent for the first half of 1983. The higher rate this year was due to higher gross inputs and lower capacity, as there were fewer active refineries than during the first half of 1983. Although no refineries were shut down during the first half of 1983, 18 refineries closed during the second half of last year. The effects of these closings were only slightly offset by the reactivation of seven others during the same period. The net closings resulted in a loss of crude oil distillation capacity of 0.7 million barrels per day between the middle of 1983 and the end of the year. Despite the closing of three refineries during the first half of 1984, crude oil distillation capacity was 16.1 million barrels per day, unchanged from the capacity at the end of last year.

Stocks

Crude Oil Stocks

Crude oil stocks (excluding the Strategic Petroleum Reserve) stood at 353 million barrels on June 30, 1984, slightly above the June 1983 level (see Table 3). During February and March, stocks were drawn down slightly, as increased refinery inputs were needed to satisfy the surge in demand for heating oils. Crude oil stocks were replenished by April and continued upward through May, before declining slightly in June. Relatively high levels of crude oil stocks (now about 30 days' supply, compared with 21 days' supply in 1978) are being maintained in order to meet demand through the use of spare refining capacity. This enables refiners to maintain low products stocks, yet still have the flexibility to meet unexpected demand.

Petroleum Product Stocks

Petroleum product stocks on June 30, 1984, totaled 735 million barrels, 2 percent above the June 1983 level (see Table 3). Continued stock drawdowns of fuel oils were offset by additions to motor gasoline stocks. Although high inventory carrying costs are still a contributing factor to the low total product stocks, the unusually cold weather during the first quarter and increased consumption this year by the industrial and transportation sectors were the primary reasons for the continued stock withdrawals of several major products. Despite higher refinery production and higher imports for these products, stock withdrawals from already-low levels were required to satisfy significantly higher demand than in 1983. In fact, such large drawdowns of distillate fuel oil stocks were required, that stocks fell below the minimum operating inventory level[4] in April and May. As a result, spot shortages occurred, notably in the Midwestern States. Motor gasoline stocks at the end of 1983 were at the lowest year-end level since 1974. During the first half of 1984, motor gasoline stocks in-

Table 3. Ending Stocks of Petroleum (Million Barrels)

Commodity	June 1984	June 1983	Percent Change
Crude Oil			
SPR	414	332	24.7
Other	353	351	0.6
Total	766	683	12.2
Products			
Motor Gasoline	245	223	9.9
Distillate Fuel Oil	113	114	– 0.9
Residual Fuel Oil	47	50	– 6.1
LPG's	106	104	1.9
Other	224	232	– 3.4
Total	735	723	1.7
Total Crude Oil and Products	1,502	1,405	6.9

Totals may not equal sum of components due to independent rounding.
Sources: Energy Information Administration, *Petroleum Supply Annual,* 1983; *Petroleum Supply Monthly,* 1984.

---

[4] The National Petroleum Council (NPC) defines the minimum operating inventory as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1983 study, the NPC estimated this inventory level for distillate fuel oil to be 105 million barrels.

creased substantially through May, against the usual trend of spring drawdowns. Much of the stock buildup resulted from excess production of motor gasoline, which was a coproduct in the production of distillate fuel oil. During the same period, favorable foreign motor gasoline prices resulted in higher imports, which satisfied the slight increase in motor gasoline demand.

Strategic Petroleum Reserve

The Strategic Petroleum Reserve (SPR), authorized under the Energy Policy and Conservation Act of 1975, is intended to reduce the impact of a severe disruption of foreign crude oil supplies to the United States. It is operational with stocks of 414 million barrels at midyear (see Table 3). The current plan approved by Congress is to have 750 million barrels in the SPR (about 90 days total oil import equivalent at 1978 rates) by 1991. At the present import rate, stocks in the SPR at the end of June 1984 represented about 85 days' supply.

If U.S. imports of crude oil alone were cut off, SPR stocks could fill the gap between domestic production and refinery inputs for about 125 days. Currently, imports from the Persian Gulf represent about 10 percent of all U.S. oil imports. The current SPR inventory can be drawn down at varying rates over the duration of a drawdown within the constraints of the current maximum sustained drawdown rate. The SPR can currently draw down and distribute oil from the sites at either an initial average sustained rate of 2.1 million barrels per day for 3 months, or at an initial average sustained rate of 1.7 million barrels per day for a period in excess of 5 months, each alternative being followed by lower rates in subsequent months.[5]

Over the past 5 years, shifts in the demand for oil from Petroleum Administration for Defense (PAD) District II to PAD District III have caused the distribution plan for the SPR oil to require change. Because of the shift in demand, two of the three major pipelines intended to move SPR oil to PAD District II refineries are no longer available. An expanded distribution system capability along the Gulf Coast is in the planning stages.[6]

For budgetary reasons, the fill rate for SPR stocks during the first half of 1984 dropped 11 percent from the comparable 1983 rate to 190 thousand barrels per day. Of the total stocks in the SPR at mid-year, about 8 percent is from domestic sources, primarily Alaska. Approximately 35 percent of the stocks in the SPR is from Mexico, 25 percent from the United Kingdom, and about 25 percent is from OPEC countries.

Imports

Total Net Imports

U.S. net imports of crude oil and petroleum products (gross imports, including imports for the SPR, minus exports) averaged 4.8 million barrels per day, 30 percent higher than during the comparable period last year (see Table 4). Because domestic production of crude oil and natural gas liquids remained about the same, virtually all of the increase in consumption was accommodated by higher imports.

Table 4. Net Imports of Petroleum (Million Barrels per Day)

Commodity	Jan.-June 1984	Jan.-June 1983	Percent Change
Crude Oil			
SPR	0.2	0.2	– 11.
Other	3.0	2.5	17.
Total	3.2	2.8	15.
Products			
Residual Fuel Oil	0.6	0.5	31.
Motor Gasoline	0.3	0.2	40.
Distillate Fuel Oil	0.2	0.0	1,346.
LPG's	0.2	0.1	65.
Other	0.3	0.1	166.
Total	1.6	0.9	75.
Total Crude Oil and Products	4.8	3.7	30.

Totals may not equal sum of components due to inde-pendent rounding.

Sources: Energy Information Administration, *Petro-leum Supply Annual,* 1983; *Petroleum Supply Monthly* 1984.

Crude Oil Imports

Net imports of crude oil, excluding the SPR, during the first half of 1984 averaged 3.0 million barrels per day, 17 percent above the comparable 1983 level, when high foreign crude oil prices and low domestic demand brought crude oil imports to their lowest level since 1972. The higher imports this year are associated with a 15 percent lower price than in early 1983, with the need to supplement crude oil production to meet higher product demand, and with the need to rebuild crude oil stocks so that refiners can maintain flexibility in meeting unexpected demand. During the first 6 months of 1984, imports accounted for about 25 percent of the refinery inputs, compared with 22 percent during the first 6 months of 1983.

Gross imports of crude oil, including imports for the SPR, this year averaged 3.4 million barrels per day, compared with 2.9 million barrels per day during the first half of 1983 (see box on page xv). Crude oil imports for the SPR averaged 0.2 million barrels per day, approximately 6 percent of all U.S. crude oil imports, compared with 7 percent during the first half of 1983.

Product Imports

During the first half of 1984, net imports of petroleum products averaged 1.6 million barrels per day, higher than at any time since 1979. This average was about 76 percent higher than the comparable 1983 average and about 14 percent higher than during the last half of 1983.

---

[5] U.S. Department of Energy, Office of the Deputy Assistant Secretary for the Strategic Petroleum Reserve.

[6] *The Wall Street Journal*, May 24, 1984, Section 2.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Changing Patterns of Petroleum Imports

Crude Oil

Crude oil imports increased moderately during the first half of 1984 from the comparable 1983 period, as improved economic conditions contributed to higher demand for petroleum. The entire increase was due to higher crude oil imports from the Organization of Petroleum Exporting Countries (OPEC). Imports declined dramatically between early 1980 and early 1983, in association with the drop in petroleum demand during that time. Imports from OPEC countries plummeted during that period, while supplies from non-OPEC countries grew.

The doubling of foreign crude oil prices between early 1979 and early 1980 contributed to the dramatic downward trend in imports, which ended during the first half of 1983. In early 1983, foreign crude oil prices decreased moderately and U.S. petroleum demand began to rise in association with the economic turnaround. Crude oil imports then began to increase, and remained higher during the first half of 1984 than for the same period in 1983.

U.S. reliance on OPEC countries for crude oil was drastically reduced between early 1980 and early 1984. In early 1980, OPEC countries provided three-quarters of all crude oil imports; so far this year, they accounted for about 45 percent. While the share of total crude oil imports from non-Arab OPEC countries was about 25 percent throughout this period, the share from Arab OPEC countries fell from 48 percent in early 1980 to 11 percent in early 1983, before increasing to about 19 percent this year.

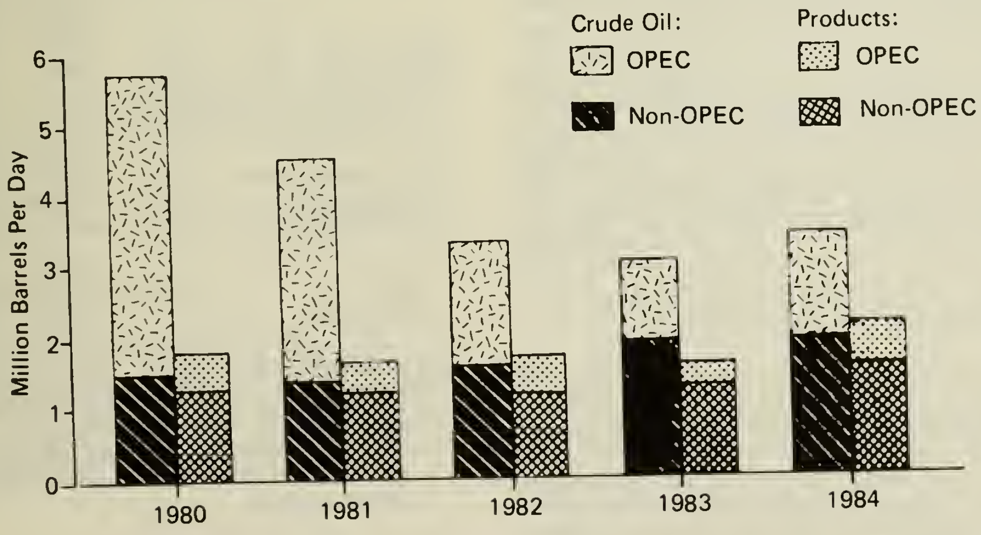
Crude oil imports from non-OPEC countries grew 25 percent between 1980 and 1983, and have been stable in the first half of 1984. Imports from Mexico increased 28 percent between early 1980 and this year. Mexico now represents about 20 percent of all crude oil imports; Canada and the United Kingdom together account for about 20 percent. In 1980, the combined share from these three countries was only 17 percent.

Petroleum Products

Gross imports of petroleum products averaged about 1.6 million barrels per day from early 1980 to early 1983, before increasing substantially this year. Product imports in early 1980 represented 23 percent of all imports; by early 1983 they accounted for 35 percent. During the first half of 1984, product imports grew more than crude oil imports, constituting about 38 percent of the total. Residual fuel oil and LPG's together accounted for 75 percent of all products imported in 1980; now residual fuel oil and motor gasoline together account for about 51 percent of product imports.

Throughout this 5-year period, Canada and the Virgin Islands have been the major suppliers of foreign products. In 1980 they accounted for about 40 percent of the product imports, compared with about 30 percent this year. OPEC countries accounted for about one-fourth of the product imports throughout this period. Imports from Arab OPEC countries, however, have grown from 2 percent in early 1980 to about 9 percent during the first half of 1984. Product imports from Arab OPEC countries are expected to grow even more, as refinery production in these countries increases.

Gross Imports of Crude Oil and Petroleum Products, by Source, January-June 1980-1984



Source: Energy Information Administration, "Petroleum Supply Annual" and predecessor reports, 1980, 1981, 1982, 1983; and "Petroleum Supply Monthly",1984.
Note: 1984 data are preliminary.

As demand for major products increased during the last half of 1983, increased imports replaced large stock withdrawals as the primary means of supplementing domestic production to meet higher product demand. This year, even though product imports increased significantly, the surge in demand for some products required further drawdowns from low stock levels to supplement production and net imports.

All major products showed substantial increases in net imports over 1983 levels. Imports of residual fuel oil, the principal product imported, increased during the first half of 1984; they had been declining for the previous 7 years. Its share of total net imports dropped to about 39 percent this year from 52 percent in the comparable 1983 period, as net imports for all other products increased solidly. Imports this year were highest in January and February to accommodate higher demand for winter heating fuels.

Net imports of motor gasoline, distillate fuel oil, and LPG's are small by comparison to residual fuel oil imports, but notable changes have occurred in recent years.

Motor gasoline imports have been rising since early 1982 and have been at record levels since the middle of 1983. This year motor gasoline imports represented over 4 percent of product supplied; historically they have accounted for only 2 or 3 percent.

Net imports of distillate fuel oil have averaged about 7 percent of product supplied since the middle of 1983, but accounted for practically none during 1982 or the first half of 1983. During that period, refiners drew down distillate fuel oil stocks to satisfy declining demand as a means of reducing high carrying costs. They also cut back refinery production and kept imports near minimum levels. Unusually cold weather at the beginning of 1984 and increased transportation use of diesel fuel contributed to an 11-percent rise in distillate fuel oil demand over comparable 1983 levels. With little cushion in distillate fuel oil stock levels, higher imports were needed to supplement refinery production.

Net imports of LPG's also grew substantially during the first half of 1984, primarily as a result of much lower exports than a year earlier. In early 1983, U.S. exports of LPG's had helped to fill the demand created when Saudi Arabia reduced its crude oil production (directly related to LPG production). Demand for LPG's also shot upward during the first half of 1984 due to a combination of colder weather and increased petrochemical industry activity. Stock drawdowns and imports both increased in order to meet the higher demand.

Gross imports of petroleum products of 2.1 million barrels per day were 34 percent higher during the first 6 months of 1984 than in the comparable 1983 period (see box on page xv), and 12 percent higher than during the second half of last year. Although gross product imports increased substantially this year, net imports increased even more because of lower exports. A 28-percent drop in product exports (primarily residual fuel oil and petroleum coke) during the last half of 1983, to 0.5 million barrels per day, was associated with the strengthened position of the U.S. dollar against foreign currencies. Exports remained at the same level during the first half of 1984 and were the principal factor in the 76-percent increase in net imports.

Exploration and Development

U.S. drilling activity, which showed gradual recovery during the last half of 1983, has been running higher each month during the first half of 1984 than for the comparable 1983 months. In April, normally the low point for drilling activity, 15 percent more rotary rigs were operating than in April 1983. The average number of rigs operating so far this year was 12 percent higher than for the same period in 1983. Drilling activity is expected to increase during the remainder of 1984.[7]

Geophysical activity, a leading indicator of future oil and gas exploration activity, was also higher during the first half of 1984 than for the corresponding 1983 period. Even though bad weather contributed to a moderate decline in the number of seismic crews searching for oil and gas in March, the seismic crew count of 471 was 5 percent higher than the March 1983 level, which was the low point last year. Seismic crew activity in the United States and on its Outer Continental Shelf rose slightly in April 1984, and increased sharply in May and June. Of the 500 active crews in June, 455 were land crews and 45 were on marine vessels.[8]

Well completions during the first 6 months of 1984 were about 4 percent higher than during the comparable 1983 period. This was about 7 percent lower than the record number drilled during the first half of 1982 (see Table 5). The total footage of completed wells also increased. The average depth per well completed so far this year was 4,313 feet, slightly deeper than the average depth during the same period in 1983. Oil wells ac-

Table 5. Drilling Activity

Item	Jan.-June 1982	Jan.-June 1983	Jan. June 1984
Average Number of Rigs Operating[1]	3,660	2,095	2,349
Total Wells Drilled[2]	43,666	38,907	40,466
Exploratory	8,791	7,544	7,347
Development	34,875	31,363	33,119
Oil	20,583	18,431	20,238
Gas	9,225	8,070	7,535
Dry Holes	13,858	12,406	12,693
Average Depth per Well (feet)	4,819	4,291	4,313

[1] Hughes Tool Company, *Rotary Rigs Running—By State*, (Houston, Texas: 1982-1984).

[2] American Petroleum Institute, *Report on Drilling Activity in the United States*, (Washington, D.C.: January 1982-June 1984).

---

[7] Austin, Thomas S., Jr., Hughes Tool Company, Houston, Texas, presentation before the Independent Petroleum Association of America Supply and Demand Committee, May 1984.

[8] Society of Exploration Geophysicists, News Release, (Tulsa, Oklahoma: July 5, 1984).

LIBRARY U. OF I. URBANA-CHAMPAIGN

counted for half of the well completions, dry holes for about one-third, and gas wells for about one-fifth.[9]

Price Trends

Crude Oil Prices

Crude oil prices at the end of June 1984 remained close to $29 per barrel. Prices dropped from $34 per barrel to this level in March 1983, in reaction to pressures caused by weak world petroleum demand, reliance on stock withdrawals rather than imports to meet demand, and excess world crude oil production capacity. During the first half of 1984, conflicting factors held crude oil prices near the $29 level. Downward pressure related to the excess world crude oil production capacity was offset by increasing world demand for petroleum, and stock drawdowns as a means of meeting demand were not as prevalent. Uncertainty caused by the recent threat of a supply cutoff from the Persian Gulf, which provides about 20 percent of the free world's supply of oil, has not caused a rise in crude oil prices, primarily because the accumulated strategic crude oil stocks outside the Persian Gulf are perceived to be adequate to counter such a disruption.[10]

The refiner acquisition cost of crude oil, which was $35.03 in June of 1981 (see Table 6), averaged $28.77 in June 1984. This was very close to the average price that held throughout most of 1983.

Table 6. U.S. Average Petroleum Prices

Petroleum Prices	June 1981	June 1982	June 1983	June 1984
(Dollars per Barrel)				
Refiner Acquisition Cost of Crude Oil				
Domestic	34.20	30.79	28.67	28.58
Imported	37.03	33.79	29.23	29.19
Composite	35.03	31.74	28.85	28.77
(Cents per Gallon)				
Motor Gasoline, All Types, Retail	136.2	129.6	126.1	121.4
No. 2 Heating Oil, Retail[1]	120.9	116.2	106.0	p107.0

[1] 1983 and 1984 prices exclude taxes.
p = preliminary.
Sources: Energy Information Administration, Form 14, "Refiners' Monthly Cost Report;" Form EIA-9A, "No. 2 Heating Oil Supply/Price Monitoring Report;" Form EIA-782A, "Monthly Petroleum Product Sales Report;" and Form EIA-782B, "Monthly No. 2 Distillate Sales Report." Motor gasoline prices: Bureau of Labor Statistics.

Petroleum Product Prices

In a counterseasonal move, average motor gasoline retail prices fell to 121.4 cents per gallon in June, 4 percent lower than for the same period of 1983, and 11 percent below the June 1981 prices. Steady increases in motor gasoline primary stocks during the first half of 1984 contributed to lower prices, assuring abundant supplies to meet the expected higher demand during the summer driving season.

The surge in heating oil demand during the unusually cold winter of 1984 prompted sharp rises in the retail price of residential heating oil during January and February. By February, the price was 10 percent higher than at the end of last year, and 5 percent higher than in February 1983. After peaking in February this year, prices declined each month through June, but remained higher than during the corresponding months of 1983. The residual effects of the winter price rise, along with continued tight supplies of distillate fuel oil, contributed to the higher prices this spring.

The residual fuel oil price is related to the international market price, because almost half of the residual fuel oil supplied is from foreign sources. Associated with increased demand for residual fuel oil at foreign utilities at times during the past year, residual fuel oil prices on the spot market have been close to, or higher than, the price of crude oil. Increased international demand, combined with the higher U.S. demand during the first quarter of 1984 to accommodate increased heating needs, has kept the residual fuel oil price close to $29 per barrel. During the first half of 1983, residual fuel oil prices on the spot market were substantially below crude oil prices.

Outlook

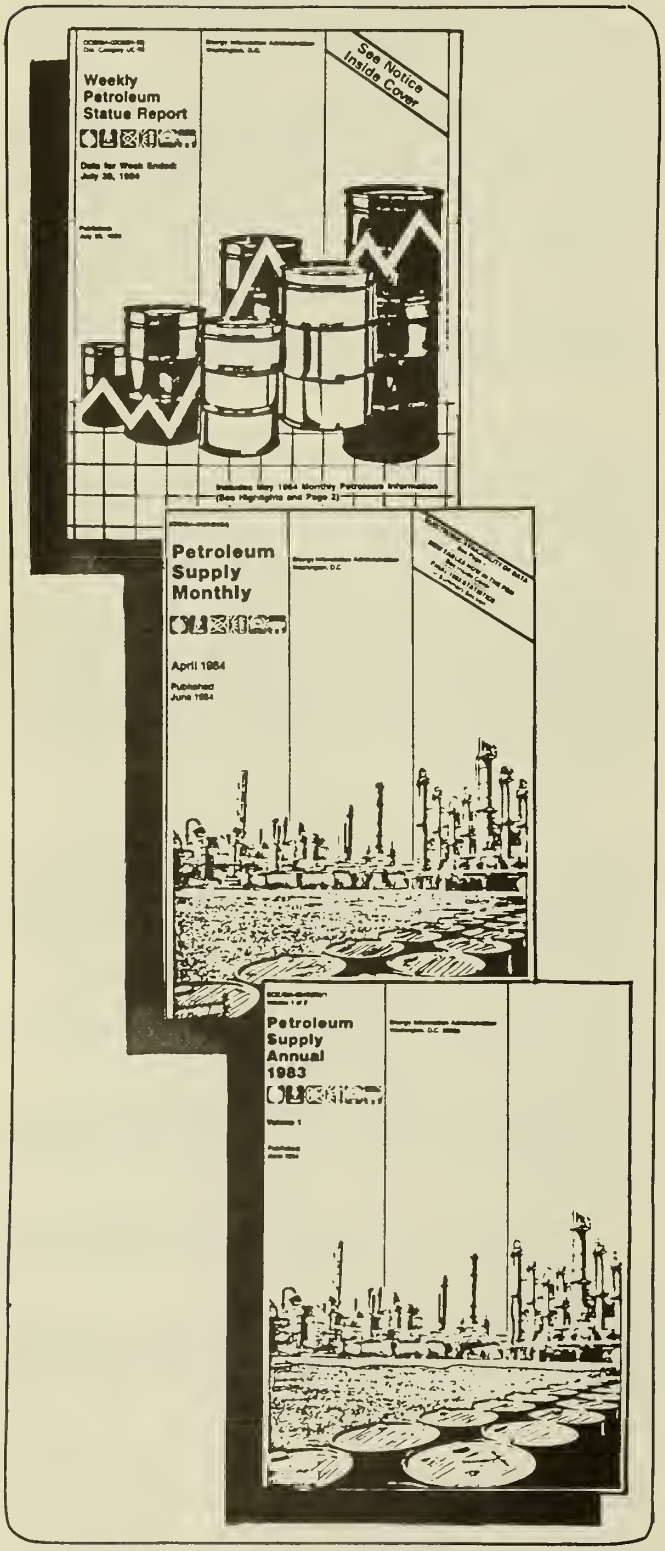
A return to normal weather and a slower rate of economic improvement are expected during the last half of 1984. These two factors should change the trends that developed during the first half of the year to some degree. The outlook for the remainder of 1984 follows:

- Consumption of petroleum products will be a little higher than for the comparable 1983 period.
- Domestic crude oil production will remain close to 8.7 million barrels per day for the remainder of the year.
- Crude oil and product prices are expected to remain relatively stable, with some seasonal variations.

---

[9] American Petroleum Institute, *Report on Drilling Activity in the United States*, (Washington, D.C.: January 1982-June 1984).
[10] *The Oil Daily*, April 27, 1984, p. A3.

Timeliness and Accuracy of Selected Petroleum Supply Data Series



The Petroleum Supply Division (PSD) of the Energy Information Administration (EIA) operates an information collection and dissemination system that includes weekly, monthly, and annual surveys. The monthly surveys are complete censuses of the operators of facilities that provide the primary supply of petroleum products in the United States (refineries, bulk terminals, pipelines, importers, etc.). These monthly surveys gather detailed information on production, stocks, imports, and flows of crude oil and a wide range of petroleum products. The weekly surveys collect data on the most important petroleum variables from selected samples of petroleum industry members. Weekly data are intended to serve primarily as leading indicators of the monthly statistics.

From 1981 through 1983, several significant changes were made to enhance petroleum data collection, processing systems, and publications. The effects of these changes on the quality of preliminary statistics can be assessed now that final statistics have been compiled and published in the 1983 *Petroleum Supply Annual (PSA).*

This article describes the enhancements which were implemented in the past 3 years. Also, it looks at the types of errors the petroleum data are subject to. Finally, it presents an assessment of the accuracy of weekly and monthly published statistics in 1983, compared with their accuracy in prior years. The article concludes that the quality of most data series has been maintained or improved, even as processing time schedules have been compressed.

Enhancements to PSD Data

On October 1, 1977, with the formation of the EIA, units from the Bureau of Mines (BOM), the Federal Energy Administration (FEA), and the Federal Power Commission (FPC) were merged together. The data systems dealing with petroleum supply data were developed independently by each of these agencies. During the first several years of EIA's existence, improvements were made in these systems, but it was not until the formation of the Petroleum Supply Division (July 1981) that a comprehensive approach to the integration of these diverse systems was undertaken.

Within the first year, the entire processing system was redesigned and the Petroleum Supply Reporting System (PSRS) was created (see box). Eleven publications were consolidated into three: *Weekly Petroleum Status Report (WPSR), Petroleum Supply Monthly (PSM),* and *Petroleum Supply Annual (PSA).* Surveys and processing procedures were scheduled so they would fit together to produce these three reports smoothly. In doing so, duplication was eliminated, the

Petroleum Supply Reporting System

The information gathered by the Petroleum Supply Reporting System (PSRS) is used to determine the supply and disposition of crude oil, petroleum products and natural gas liquids. These statistics are published in the "Weekly Petroleum Status Report" (WPSR), the "Petroleum Supply Monthly" (PSM), the "Petroleum Supply Annual" (PSA), the "Monthly Energy Review" (MER), and the "Annual Energy Review" (AER). In addition, selected statistics from the PSRS are available free to the public through EIA's Electronic Publication System (EPUB). The PSRS is the most comprehensive source of petroleum supply statistics currently available.

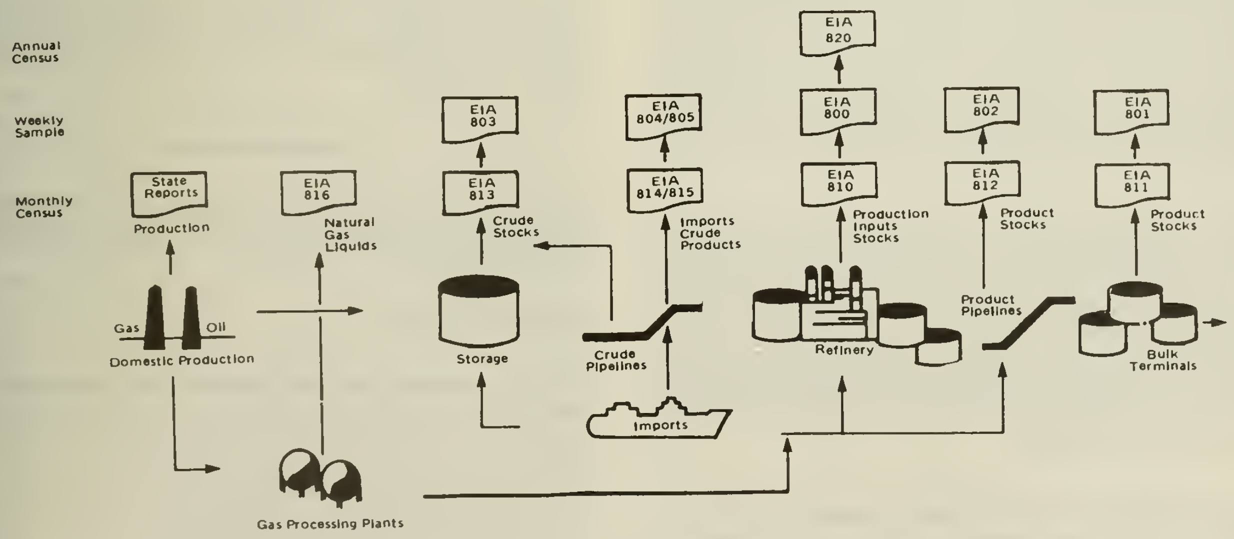
The PSRS consists of one annual, eight monthly, and six weekly surveys which collect information on domestic production, inventories, imports, and movements of petroleum (see figure below). Data from these surveys are supplemented by the Census Bureau's IM-145 tabulation which provides information on imports of liquefied petroleum gases and the Census Bureau's EM-522 tabulation which provides information on petroleum exports. EIA's crude oil production data are based on information collected by State agencies and the U.S. Geological Survey.

The PSRS has seven sampling frames for different sectors of the petroleum industry: refineries and mechanical blenders, bulk terminals with a capacity of 50,000 barrels or more, product pipelines, holders of crude oil stocks having possession of 1,000 barrels or more, petroleum importers, gas processing plants, and tanker and barge companies. The petroleum universes are relatively small and everchanging due to company births, deaths, mergers, and splits. All frames are updated continuously. Investigations of the adequacy of the frames are conducted periodically.

The annual and monthly surveys are complete censuses. The weekly surveys are collected from 90 percent cut-off samples selected from the universes of those units that report to the monthly surveys. Unlike the monthly surveys which collect data on as many as 50 variables, the weekly surveys collect data only on crude oil, motor gasoline, jet fuel, distillate fuel oil, and residual fuel oil. Most of the data reported in the weekly surveys are estimated by the reporting companies, while data reported in the annual and monthly surveys are based on company accounting records. Inventory data are reported as of the end of the reference period. Data on imports, inputs, outputs, and movements of crude oil and petroleum products between PAD Districts show the total volume of activity for the reference period. All quantities are reported in thousand barrels (42 U.S. gallons). Zeros often dominate the responses; i.e., not all of the units produce and/or store all products. The distributions of the petroleum supply variables are highly skewed; i.e., there are many small units and few large ones.

The reference period for the weekly surveys extends from 7 a.m. Friday to 7 a.m. the following Friday. These data are published in the "WPSR" on Thursday following the close of the reference week. The reference period for the monthly surveys begins 12 a.m. of the first day of the month and ends midnight of the last day of the month. These data are published in preliminary form in the "PSM," 60 days after the close of the reference month. Data resubmissions are required whenever an error greater than 5 percent of the true value is discovered by a respondent, or if requested by the EIA to correct internal inconsistencies. Final data, reflecting any necessary corrections, and the results of the annual survey (Form EIA-820, "Annual Refinery Report") are published in the PSA, 6 months after the close of the calendar year.

Principal Petroleum Supply Survey Forms



number of revisions was substantially reduced, inconsistencies in the publications were eliminated, and it became easier for users to locate and use the data produced.

On July 14, 1983, EIA began to publish weekly data in the *WPSR* on the Thursday following the report week. Prior to that time, the *WPSR* was published on the Friday following the report week. This change requires completion of final data estimates one day earlier. Also, EIA discontinued revising the published weekly estimates.

The *PSM* now publishes monthly data 60 days after the end of a report month. Prior to the *PSM* consolidation, data appeared in the *Monthly Petroleum Statistics Report (MPSR)* 60 days after the end of a report month and in the *Monthly Petroleum Statement (MPS)* 90 days after the end of the report month. The *MPS*'s time schedule allowed revisions to reflect company resubmissions and corrections, inclusion of data from companies that were nonrespondents at the last publication, and correction of data processing errors. While the time lag for publication of monthly data in the *PSM* is virtually the same as in the *MPSR*, the *PSM* presents more comprehensive statistics than previously provided in the *MPS*. Monthly estimates derived from weekly data are also published in the *PSM* 30 days after the end of a report month.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Final monthly data are now published in the *PSA* 6 months after the close of the calendar year. Prior to the March 1982 consolidation, final data were published in the *Annual Petroleum Statement (APS)* 9 months after the close of the calendar year.

Beginning with the reporting of January 1983 data, new revised survey forms were implemented. (A detailed explanation of all the changes made to the survey forms is contained in the March 1983 *PSM*.) Consistency among weekly, monthly, and annual survey forms was enhanced by using a single set of definitions, consistent reporting instructions, identical product codes, and common company and facility identifiers.

A major update to the survey frames was implemented in January 1983, based on results of a study begun in 1981. Operators of 160 bulk terminals, 15 pipelines, and 30 crude oil stock holders were added to the respective frames. In addition, 50 facilities that reported to the "Natural Gas Liquids Operations Report" were transferred to the bulk terminal frame. EIA's estimates of total stocks of petroleum products increased 2.2 percent as a result of this change.

In January 1983, a new processing system was implemented for all of the weekly surveys. An automated editing procedure was implemented to validate facility-level data for each of the weekly surveys. Also, an automated procedure was implemented to impute for missing or faulty data. Prior to this, nonrespondents were treated as nonsampled units. Major changes to the weekly imports data estimation procedures were also implemented. In March 1983, new samples were drawn for the weekly surveys to reflect the expanded frames. Along with the new samples, new sample control procedures were implemented to maintain the appropriate level of coverage and to ensure that the weekly and monthly data remain consistent.

In March 1983, a new processing system was implemented for all of the monthly surveys. Imputation procedures used for nonresponse in the monthly surveys since 1976 were revalidated and additional automated edit procedures are now being implemented.

In an effort to improve the quality of petroleum supply data, an on-going comparison of data submitted by individual companies on the weekly and monthly forms is routinely conducted. Historical reporting patterns for both monthly and weekly surveys are compared, and facilities that systematically report different values on the weekly and monthly surveys are identified. Letters are sent to those companies showing a large average difference in monthly and weekly reporting for three or more products over a period of 12 months and large differences (in the same direction) over the most recent 2 months. Companies with major sustained discrepancies for one or two products are contacted by phone.

To monitor values of key variables reported in the weekly and monthly surveys, graphical comparisons are drawn between published monthly data for a particular variable and the monthly value derived from weekly data for that variable.

Last, but not least, is the implementation of a system for documenting the steps being taken to improve data quality. A "Quality Control Notebook" is prepared to summarize current activities, evaluate current data quality, and establish an agenda for future enhancements or studies.

Sources of Error

In evaluating the accuracy of a survey, it is necessary to distinguish two sources of errors: sampling and nonsampling errors.

Sampling Error

Sampling errors are unavoidable when estimates are based on a sample and not on the whole universe. Nevertheless, they can be controlled within limits fixed in advance, and they can also be estimated objectively from the sample itself. Weekly estimates, all based on samples, are subject to this type of error. This accounts for part of the difference between published weekly estimates and final annual figures. However, the fact that the sample accounts for 90 percent or more of the aggregates being estimated assures small sampling errors.

Nonsampling Errors

These errors can be classified into two groups—random types of errors whose effects nearly cancel out, and nonrandom types which tend to remain more-or-less fixed and constitute a systematic error. Both weekly and monthly data are subject to nonsampling errors. Four of the main contributing causes of these errors are as follows:

1. **Frame error:** PSRS frames are continually reviewed and updated in order to reduce undercoverage. In general, faults in the frames are small compared to other errors.

2. **Nonresponse error:** PSRS surveys have very high response rates. The response rates are usually above 95 percent for the weekly surveys and are always above 98 percent for the monthly surveys. Missing or faulty weekly data are imputed using the exponentially smoothed average of respondent's past reported values. The monthly processing system uses the data reported in the previous month as the imputed value for the missing data for all surveys except the import survey. Because of the high rates of response and the use of imputation procedures, nonresponse error has a negligible impact on PSRS data accuracy.

3. **Processing error:** Data keying into computer files presents another opportunity for error; for example, two digits may be transposed or a datum may be entered in the wrong cell. Depending on their magnitude, some of these clerical errors may be detected by automated edit procedures that check current data for consistency with past data and for internal consistency; e.g., totals equal to the sums of the parts. However, processing errors cannot always be detected, especially if they are of small magnitude.

4. **Response error:** Response or reporting error (the difference between the true value and the value reported on the survey form) is the major factor affecting the accuracy of PSRS data and, in particular, preliminary data. Most discrepancies between preliminary and final data are due to reporting errors. Reporting errors can take many forms. For example, human errors may also occur when figures are written on forms by respondents. Often these mistakes can be detected and resolved by editing procedures. Sometimes, company records are not finalized at the time monthly survey forms are due and respondents submit preliminary estimates. This error is noticeable in import data because final company import records are not available until forms have been verified by the U.S. Customs Service. These errors may cause large discrepancies between preliminary and final data. Most companies can only report estimates for weekly data. Any error in these estimates will affect the accuracy of weekly data. Sometimes product identification changes during the period between weekly and monthly data submissions. For example, a respondent may initially report the production of oil as residual fuel oil on the weekly form and later decide to process it further. When he files his monthly form, he may record the same oil as unfinished oil, since it is no longer regarded as residual fuel oil. This change again affects the accuracy of the weekly data.

Data Assessment

This section tracks the change in accuracy of PSRS data as the data move from preliminary publication *(PSM)* to final publication *(PSA)*. In addition to preliminary monthly data, the *PSM* reports monthly estimates derived from the weekly data for the most recent month (see Explanatory Note 8 in this publication). Monthly-from-weekly estimates (MFW) are also compared with preliminary *(PSM)* and final *(PSA)* monthly data as part of on-going data quality activities.

Before proceeding, it is important to keep in mind three points. First, weekly data, based on estimates provided by a sample of companies, were intended to serve primarily as leading indicators of the monthly data and were never expected to have the same level of accuracy. Second, the method used to derive the monthly-from-weekly estimates assumes that input, production, and stock addition or withdrawal are constants across each day of the week. Accuracy of these monthly-from-weekly estimates depends on the realization of the assumption. Third, final monthly data are still subject to errors. However, these final data accommodate revisions made by respondents following thorough review and editing by government and company statisticians and are considered to be the most accurate data available.

In order to assess the accuracy of monthly estimates developed from weekly data (MFW) and preliminary monthly values *(PSM)*, they are compared with the final monthly values *(PSA)*. The *error* for a given value is the difference between interim monthly value (MFW or *PSM)* and the final monthly value *(PSA)*. The *percent error* is the error multiplied by 100 and divided by the final monthly value. *Absolute mean error* is the average of the absolute values of the errors over 12 months. Absolute mean error provides a measure of the average magnitude of revision which occurred over the year for a particular data series. *Absolute mean percent error* is the average of the absolute values of the percent errors over 12 months. Absolute mean percent error provides a measure of the average error relative to the aggregate being measured. Table 1 displays absolute mean errors and absolute mean percent errors of monthly-from-weekly estimates and preliminary monthly values for 30 petroleum variables for 1982 and 1983.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Table 1 shows that the majority of data series nave improved in 1983. Except for refined product imports, absolute mean percent errors for all preliminary monthly data (*PSM*) are less than 2 percent. For the monthly-from-weekly estimates, absolute mean percent errors of residual fuel oil imports, production and stocks are high (4.80 to 6.59 percent). Absolute mean percent errors of refined product imports are also high; however, for most products, the volume of imports is relatively small.

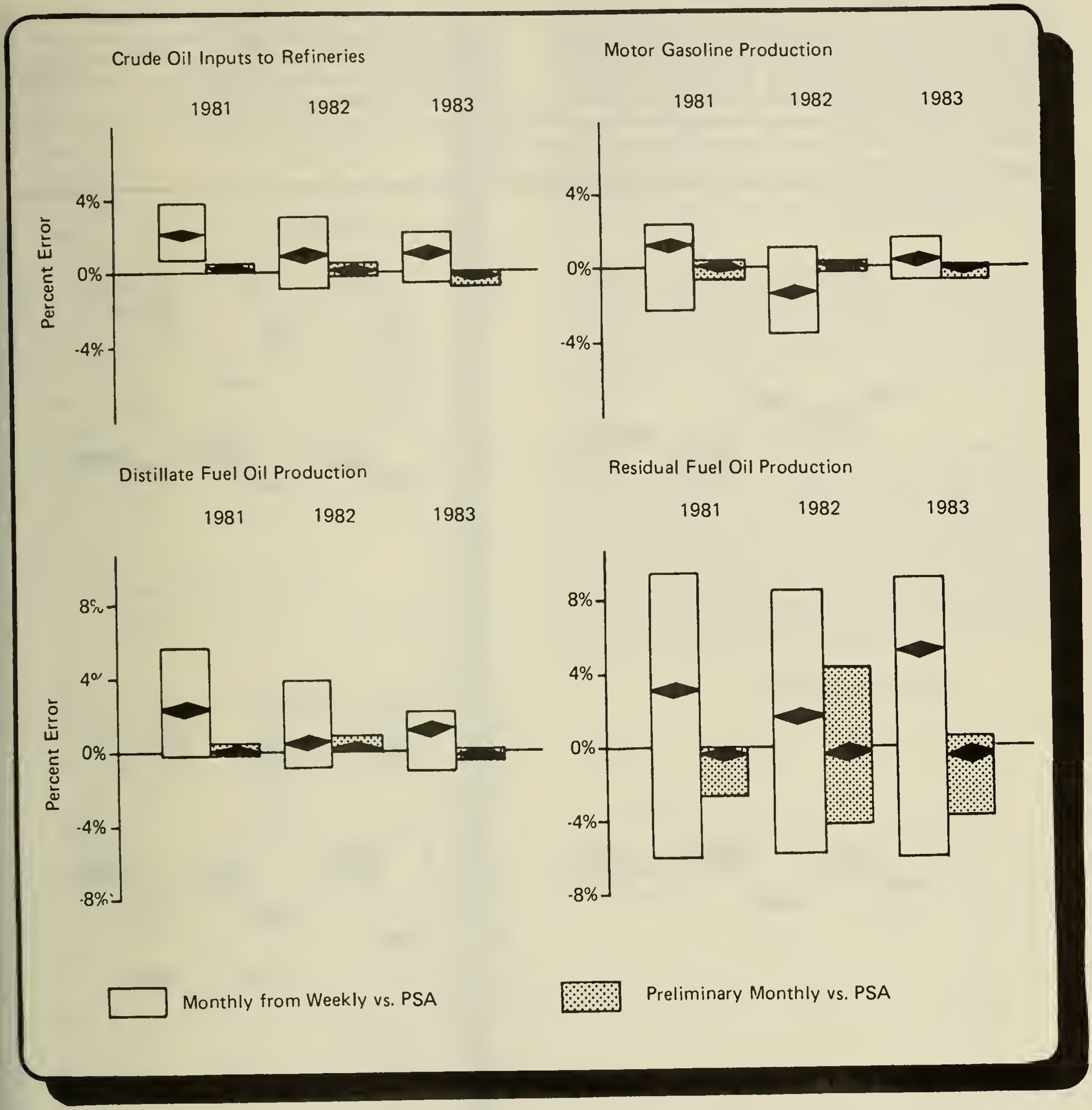
Highlights of interim (MFW and *PSM)* and final *(PSA)* monthly data comparisons are presented in Figures 1 through 3 for selected petroleum data series—stocks and inputs of crude oil; production and stocks of motor gasoline, distillate fuel oil, and residual fuel oil; and imports of crude oil and petroleum products. These data series were carefully selected for analysis and target improvement in 1982, because of their relative size, and because other major variables (such as the product supplied series) are generated from them.

Table 1. Summary Statistics of Differences in Reporting Between Interim Publications and Petroleum Supply Annual in 1982 and 1983

	Monthly-from-Weekly Estimates				Preliminary Monthly Data			
	Absolute Mean Error*		Absolute Mean Percent Error		Absolute Mean Error*		Absolute Mean Percent Error	
Variable	1983	1982	1983	1982	1983	1982	1983	1982
Total Products Supplied. .	303	340	1.95	2.22	74	50	.49	.32
Refinery Output.	249	180	1.96	1.35	23	14	.17	.10
Crude Input	112	127	.97	1.08	12	10	.13	.09
Crude Production	84	29	.97	.33	80	47	.93	.55
Total Imports	171	406	3.84	8.18	66	72	1.37	1.45
Crude Imports	119	153	3.85	4.50	35	29	1.17	.89
Product Imports	173	272	10.27	16.64	36	44	2.06	2.73
Gasoline Imports.	29	34	11.02	17.38	10	11	4.56	5.43
Distillate Imports.	22	27	13.18	27.90	5	2	3.46	1.60
Residual Imports.	46	97	6.59	12.68	10	19	1.36	2.66
Jet Fuel Imports	10	10	32.83	38.25	4	2	12.67	6.77
Other Products Imports . .	89	152	15.00	28.90	21	13	3.67	2.40
Gasoline Supplied.	94	200	1.41	3.01	27	36	.42	.56
Distillate Supplied.	75	101	2.62	3.87	20	25	.74	.86
Residual Supplied.	91	108	6.16	6.35	19	27	1.32	1.45
Jet Fuel Supplied	39	31	3.72	3.09	11	7	1.10	.70
Other Products Supplied .	210	161	6.12	4.75	55	43	1.64	1.29
Gasoline Production.	32	97	.49	1.54	10	11	.16	.17
Distillate Production.	31	29	1.27	1.11	3	6	.13	.25
Residual Production	41	39	4.80	3.68	7	13	.78	1.16
Jet Fuel Production.	14	16	1.39	1.61	3	1	.27	.14
Other Product Production	199	122	8.53	5.04	6	5	.26	.23
Total Stocks.	7,618	10,753	.69	.95	3,543	2,560	.32	.22
Product Stocks	9,607	5,459	1.28	.70	1,231	2,489	.16	.32
Crude Stocks.	4,646	10,017	1.34	2.82	3,205	1,219	.92	.34
Gasoline Stocks	3,035	2,687	1.33	1.16	563	1,100	.24	.46
Distillate Stocks	1,448	3,795	1.09	2.60	476	552	.33	.42
Residual Stocks	2,607	1,956	5.11	3.24	143	172	.28	.29
Jet Fuel Stocks	821	447	1.98	1.11	422	93	1.03	.24
Other Products Stocks . . .	5,773	6,815	2.00	2.25	1,099	1,242	.39	.41

*All absolute mean errors are reported in thousand barrels per day, except stock data, which are reported in thousands of barrels.
Note: Absolute mean error is the average of the absolute values of errors over 12 months; absolute mean percent error is the average of the absolute values of percent errors over 12 months.

Figure 1. Range of Percent Errors of Interim Refinery Inputs and Production Data.



Note: Diamond = Median of percent errors; i.e., the average of the two middle values are arranged in order of magnitude.
Bar = Range of percent errors occurring during the year; i.e., the upper end point of the bar is the maximum percent error and its lower end point is the minimum percent error.

Source: Energy Information Administration.

Refinery Inputs and Production

Except for residual fuel oil, there was some improvement in weekly inputs and production data during 1983 (see Figure 1). Weekly residual fuel oil production shows positive bias, due to problems in product classification. Residual fuel oil might be classified an unfinished oil or as residual fuel oil depending on whether it is to be further processed or sold.

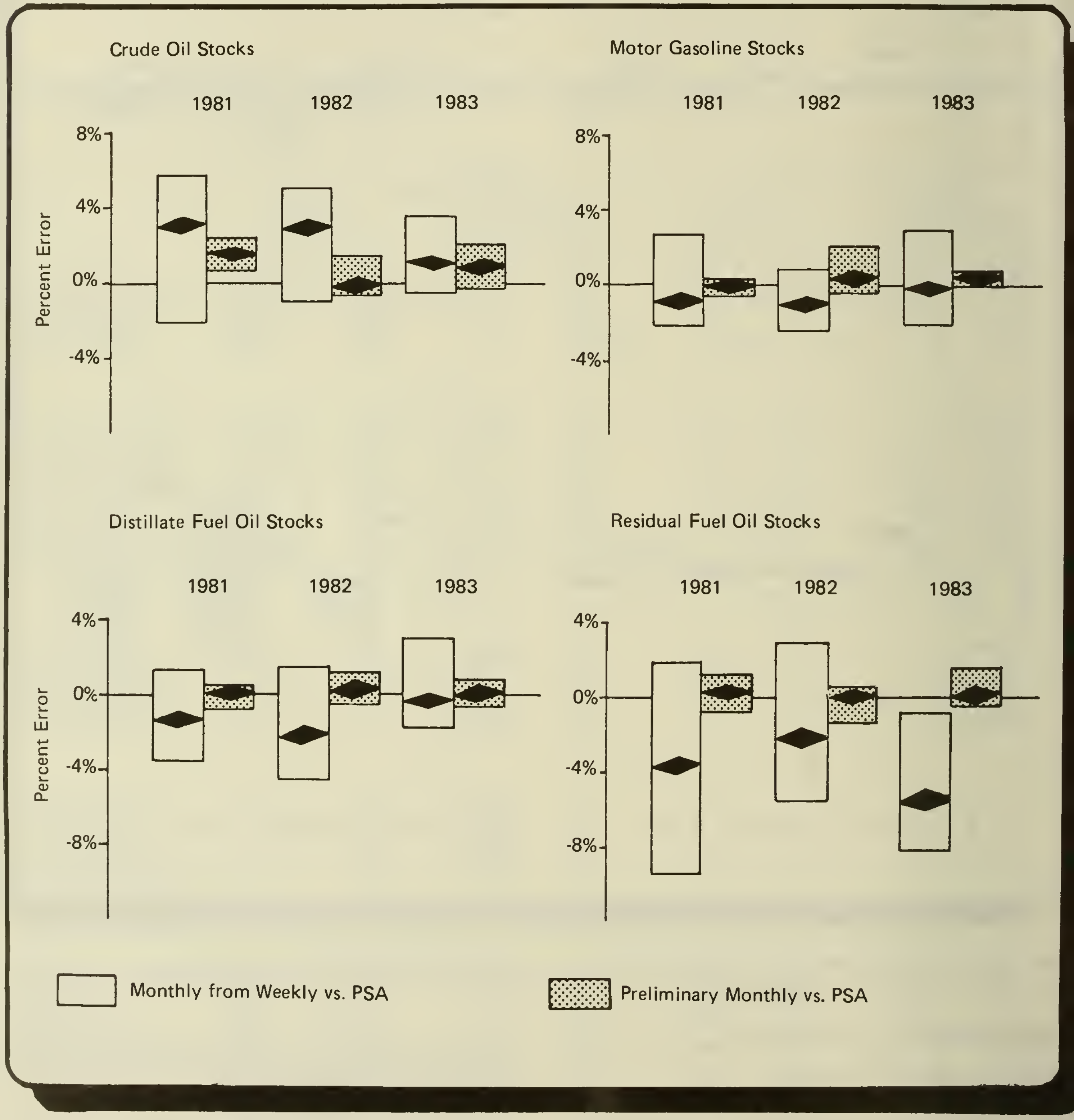
The accuracy of monthly refinery inputs and production data remained about the same in 1981, 1982, and 1983 except for residual fuel oil, which improved in 1983. Revisions were less than 1 percent except for one month (3.8 percent).

Stocks

Accuracy of the weekly stocks data improved slightly in 1983 except for residual fuel oil (see Figure 2). Weekly residual fuel oil stocks data are still systematically low because of reporting errors of a few bulk terminals. Weekly crude oil stocks showed a slight positive bias.

While motor gasoline stocks data showed improvement, accuracy of most monthly stocks data series remained about the same. In general, revisions in monthly stocks data, although large volumetrically, were proportionally small during 1983.

Figure 2. Range of Percent Errors of Interim Stocks Data.

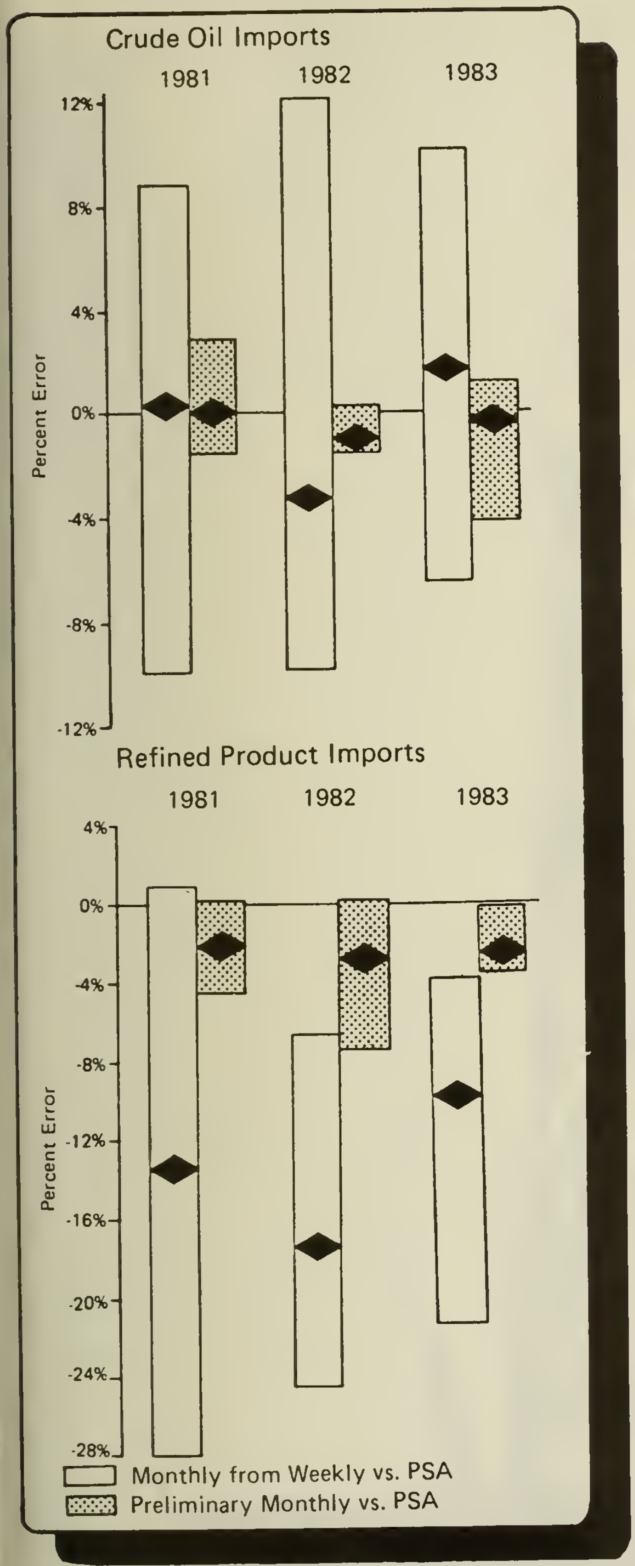


Note: Diamond = Median of percent errors; i.e., the average of the two middle values when the values are arranged in order of magnitude.
Bar = Range of percent errors occurring during the year; i.e., the upper point of the bar is the maximum percent error and its lower end point is the minimum percent error.

Source: Energy Information Administration

LIBRARY U. OF I. URBANA-CHAMPAIGN

Figure 3. Range of Percent Errors of Interim Imports Data



Note: Diamond = Median of percent errors; i.e., the average of the two middle values when the values are arranged in order of magnitude.
Bar = Range of percent errors occurring during the year; i.e., the upper end point of the bar is the maximum percent error and its lower end point is the minimum percent error.

Source: Energy Information Administration.

Imports

Figure 3 shows that the accuracy of weekly crude oil and refined product imports data improved slightly in 1983. Weekly imports data show relatively large errors. Imports data are highly variable and cannot be estimated from a sample with the same precision as the other petroleum variables. In addition, most imports data are estimated by respondents. Weekly estimates of refined product imports are almost always low, because small companies, which are not in the weekly sample, tend to exhibit irregular import patterns; i.e., they import large amounts of finished products only once or twice a year.

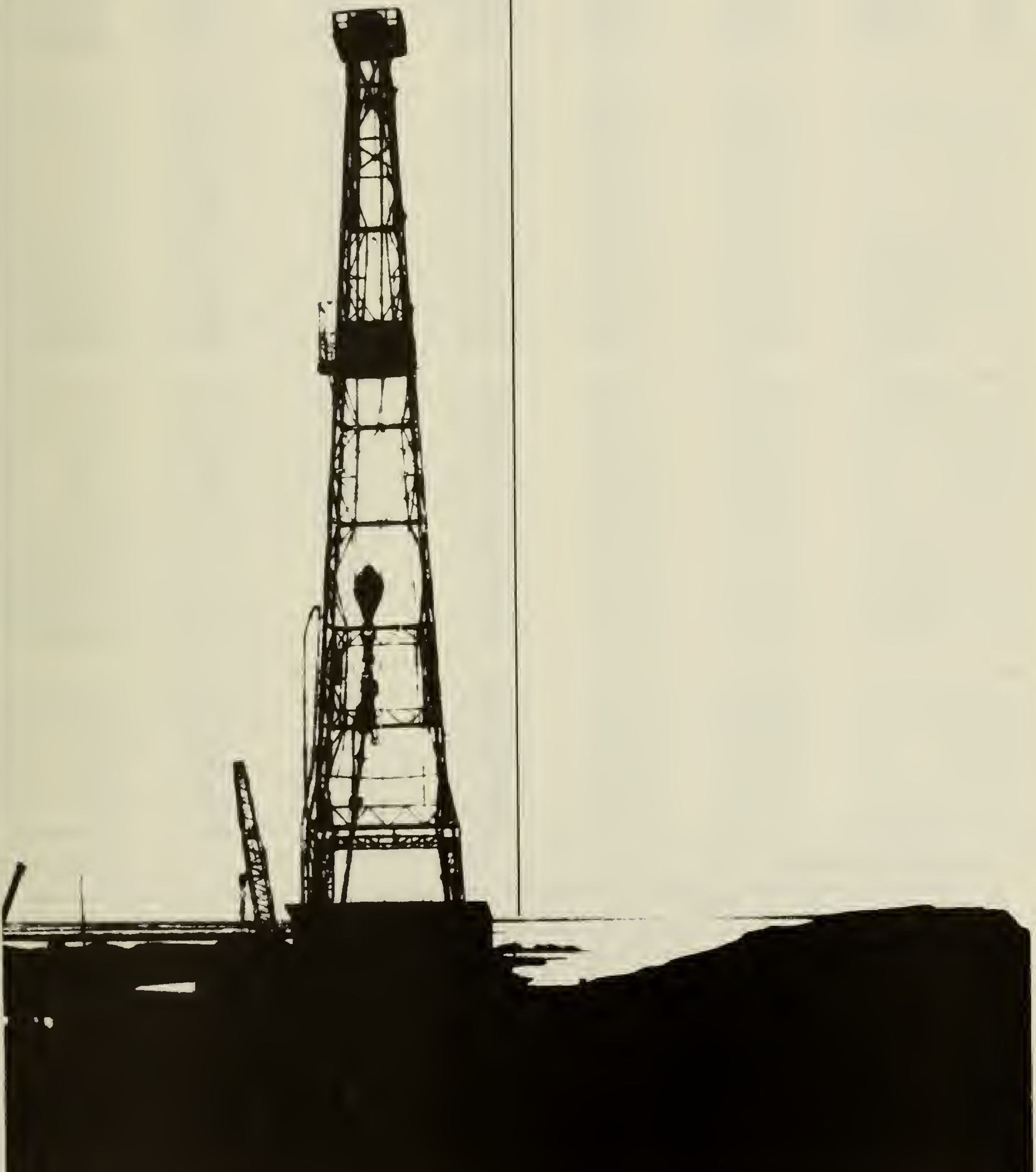
Accuracy of monthly refined product imports data improved in 1983. In general, imports data are subject to larger revision than the other petroleum variables, because final company import records are not available until forms have been verified by the U.S. Customs Service.

Conclusion

Data quality efforts have enabled EIA to advance the timing of its weekly and monthly petroleum supply publications while maintaining the accuracy of most data series. Overall improvement in petroleum supply data has been a joint effort involving more timely and consistent reporting by respondents, and the development of systematic processing procedures, improved edit and estimation methods, and more thorough follow-up and reconciliation of aberrant data.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Summary Statistics



LIBRARY U. OF I. URBANA-CHAMPAIGN

Crude Oil[1] and Petroleum Products Overview

	Field Production			Stock Withdrawal[2]			Ending Stocks[3]
	Total Domestic[4]	Crude Oil	Natural Gas Plant Production	Crude Oil[5]	Petroleum Products	Petroleum Products Supplied	Crude Oil[5] and Petroleum Products
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**10,975**	**9,208**	**1,738**	**11**	**-146**	**17,308**	**1,008**
1974 AVERAGE	**10,498**	**8,774**	**1,688**	**-62**	**-117**	**16,653**	[8] **1,074**
1975 AVERAGE	**10,045**	**8,375**	**1,633**	[8] **-17**	[8] **-145**	**16,322**	**1,133**
1976 AVERAGE	**9,774**	**8,132**	**1,603**	**-39**	**96**	**17,461**	**1,112**
1977 AVERAGE	**9,913**	**8,245**	**1,618**	**-170**	**-378**	**18,431**	**1,312**
1978 AVERAGE	**10,328**	**8,707**	**1,567**	**-78**	**172**	**18,847**	**1,278**
1979 AVERAGE	**10,179**	**8,552**	**1,584**	**-148**	**-25**	**18,513**	**1,341**
1980 AVERAGE	**10,214**	**8,597**	**1,573**	**-98**	**-42**	**17,056**	[8] **1,392**
1981 AVERAGE	**10,230**	**8,572**	**1,609**	[8] **-290**	[8] **130**	**16,058**	**1,484**
1982 January	10,128	8,509	1,578	-401	1,298	16,124	1,456
February	10,312	8,702	1,563	-242	1,230	16,001	1,428
March	10,284	8,667	1,572	121	1,047	15,560	1,392
April	10,188	8,591	1,542	-37	1,583	16,046	1,346
May	10,244	8,683	1,518	29	-66	14,847	1,347
June	10,212	8,646	1,511	40	-489	14,998	1,360
July	10,229	8,658	1,513	-147	-926	14,821	1,393
August	10,215	8,634	1,524	-440	-44	14,839	1,408
September	10,279	8,701	1,518	263	-447	15,022	1,414
October	10,299	8,701	1,530	-548	-47	14,859	1,432
November	10,359	8,697	1,609	-398	-361	15,009	1,455
December	10,276	8,598	1,628	128	688	15,487	[8] 1,430
AVERAGE	**10,252**	**8,649**	**1,550**	**-136**	**283**	**15,296**	
1983 January	10,331	8,697	1,580	[8] -499	[8] 772	14,722	1,452
February	10,388	8,758	1,575	-320	1,113	14,792	1,430
March	10,279	8,700	1,541	83	1,810	15,541	1,372
April	10,322	8,776	1,506	-402	308	14,692	1,374
May	10,190	8,631	1,493	-15	-602	14,505	1,394
June	10,261	8,667	1,523	-122	-276	15,289	1,405
July	10,228	8,636	1,539	233	-909	15,019	1,426
August	10,284	8,679	1,562	-796	-271	15,480	1,460
September	10,447	8,784	1,602	-239	-621	15,506	1,485
October	10,434	8,771	1,604	-274	-442	14,962	1,508
November	10,461	8,770	1,641	114	-182	15,500	1,510
December	9,983	8,397	1,544	-329	2,133	16,726	1,454
AVERAGE	**10,299**	**8,688**	**1,559**	**-214**	**234**	**15,231**	
1984 January	10,282	8,659	1,585	-342	1,085	16,726	1,430
February	10,410	8,726	1,629	186	-1,353	15,389	1,464
March	10,354	8,718	1,588	-2	643	16,017	1,444
April	10,347	8,688	1,616	-565	-128	15,484	1,465
May	10,415	8,752	1,610	-616	-422	15,566	1,497
June*	10,398	8,743	1,612	R -95	R -77	R 15,687	1,502
July**	NA	8,769	NA	*-240*	*-103*	*15,311*	*1,512*
AVERAGE	**NA**	**8,722**	**NA**	**-242**	**-38**	**15,745**	

---

[1] Includes lease condensate.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] Stocks are totals as of end of period.

[4] Includes crude oil, natural gas plant production, other hydrocarbons, and alcohol.

[5] Includes stocks located in the Strategic Petroleum Reserve.

[6] Includes crude oil for storage in the Strategic Petroleum Reserve.

[7] Net Imports equal Imports minus Exports.

[8] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

Footnotes continued on following page.

Crude Oil[1] and Petroleum Products Overview (continued)

	Imports			Exports			
	Total	Crude Oil[6]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net[7] Imports
	Thousand Barrels per Day						
1973 AVERAGE	**6,256**	**3,244**	**3,012**	**231**	**2**	**229**	**6,025**
1974 AVERAGE	**6,112**	**3,477**	**2,635**	**221**	**3**	**218**	**5,892**
1975 AVERAGE	**6,056**	**4,105**	**1,951**	**209**	**6**	**204**	**5,846**
1976 AVERAGE	**7,313**	**5,287**	**2,026**	**223**	**8**	**215**	**7,090**
1977 AVERAGE	**8,807**	**6,615**	**2,193**	**243**	**50**	**193**	**8,565**
1978 AVERAGE	**8,363**	**6,356**	**2,008**	**362**	**158**	**204**	**8,002**
1979 AVERAGE	**8,456**	**6,519**	**1,937**	**472**	**235**	**237**	**7,984**
1980 AVERAGE	**6,909**	**5,263**	**1,646**	**544**	**287**	**258**	**6,365**
1981 AVERAGE	**5,996**	**4,396**	**1,599**	**595**	**228**	**367**	**5,401**
1982 January	5,332	3,693	1,639	829	238	591	4,503
February	4,807	2,990	1,817	804	304	499	4,003
March	4,484	2,874	1,610	882	321	561	3,602
April	4,378	2,849	1,529	786	174	611	3,593
May	4,811	3,309	1,503	803	262	542	4,008
June	5,327	3,836	1,491	703	94	609	4,624
July	5,890	4,248	1,642	741	229	512	5,149
August	5,244	3,851	1,392	858	304	554	4,386
September	5,414	3,636	1,778	791	184	606	4,624
October	5,306	3,670	1,636	932	270	662	4,374
November	5,744	3,862	1,882	786	262	524	4,958
December	4,606	3,000	1,605	860	193	667	3,746
AVERAGE	**5,113**	**3,488**	**1,625**	**815**	**236**	**579**	**4,298**
1983 January	4,438	2,964	1,474	973	117	856	3,464
February	3,726	2,267	1,459	865	262	603	2,861
March	3,690	2,290	1,400	801	174	627	2,889
April	4,727	3,118	1,609	809	88	721	3,918
May	5,089	3,360	1,729	848	280	568	4,241
June	5,326	3,577	1,749	774	144	630	4,552
July	5,741	3,871	1,870	571	145	426	5,170
August	6,159	4,227	1,933	663	172	491	5,496
September	6,129	4,210	1,919	684	177	507	5,445
October	5,258	3,446	1,812	576	140	436	4,682
November	5,210	3,337	1,873	679	186	494	4,531
December	5,033	3,213	1,820	639	95	544	4,394
AVERAGE	**5,051**	**3,329**	**1,722**	**739**	**164**	**575**	**4,312**
1984 January	5,347	3,029	2,318	575	153	422	4,772
February	5,643	2,952	2,691	582	185	397	5,061
March	5,253	3,455	1,798	840	236	605	4,413
April	5,319	3,417	1,902	655	172	483	4,664
May	5,916	3,927	1,989	766	219	548	5,150
June*	R 5,304	R 3,410	R 1,893	864	222	642	4,440
July**	*5,038*	*3,616*	*1,423*	NA	NA	NA	NA
AVERAGE	**5,401**	**3,405**	**1,997**	**NA**	**NA**	**NA**	**NA**

Footnotes continued.

* See Explanatory Note 9.1.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available.

Note: Geographic coverage is the 50 United States and the District of Columbia.

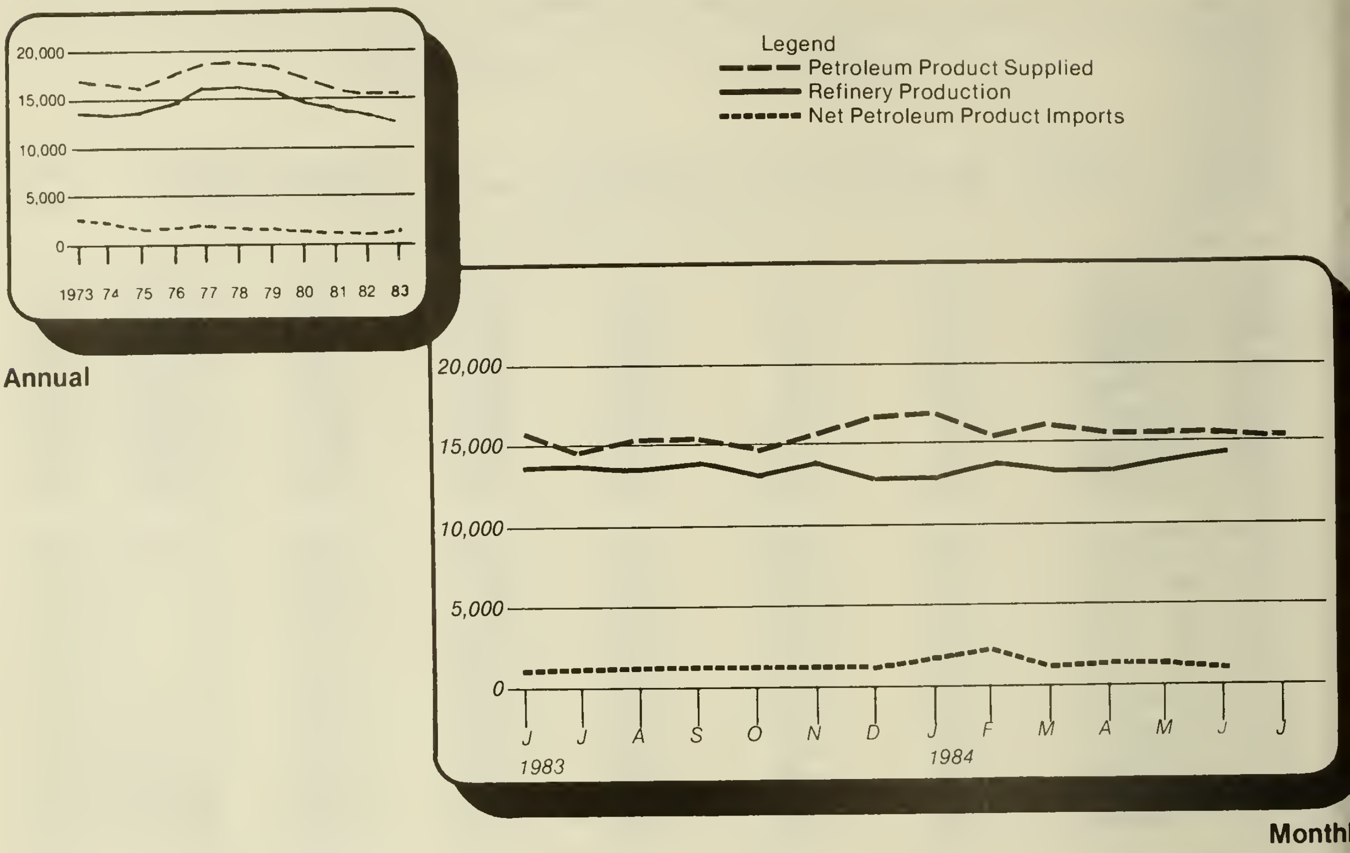
Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

LIBRARY U. OF I. URBANA-CHAMPAIGN

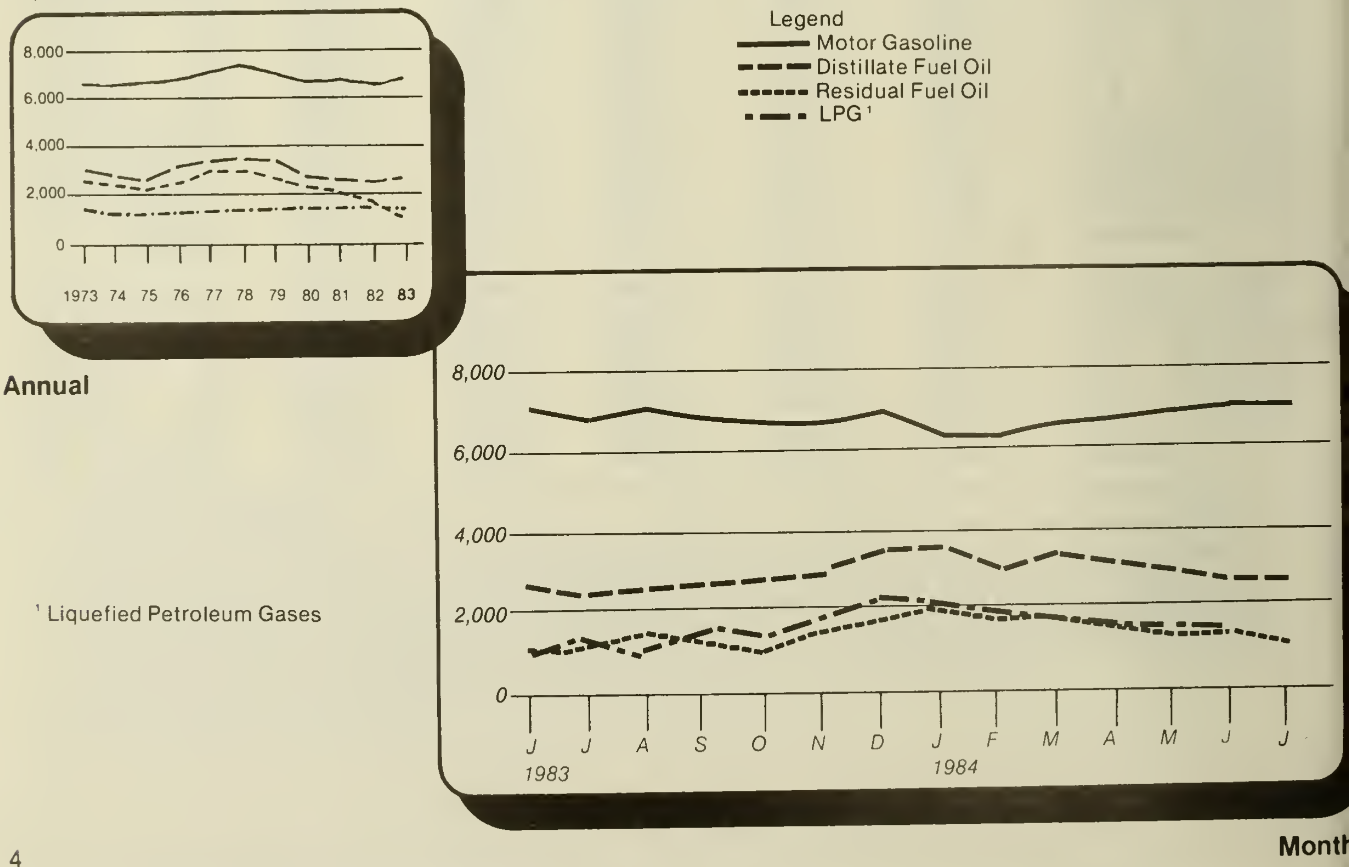
Petroleum Overview

(Thousand Barrels Per Day)



Petroleum Products Supplied

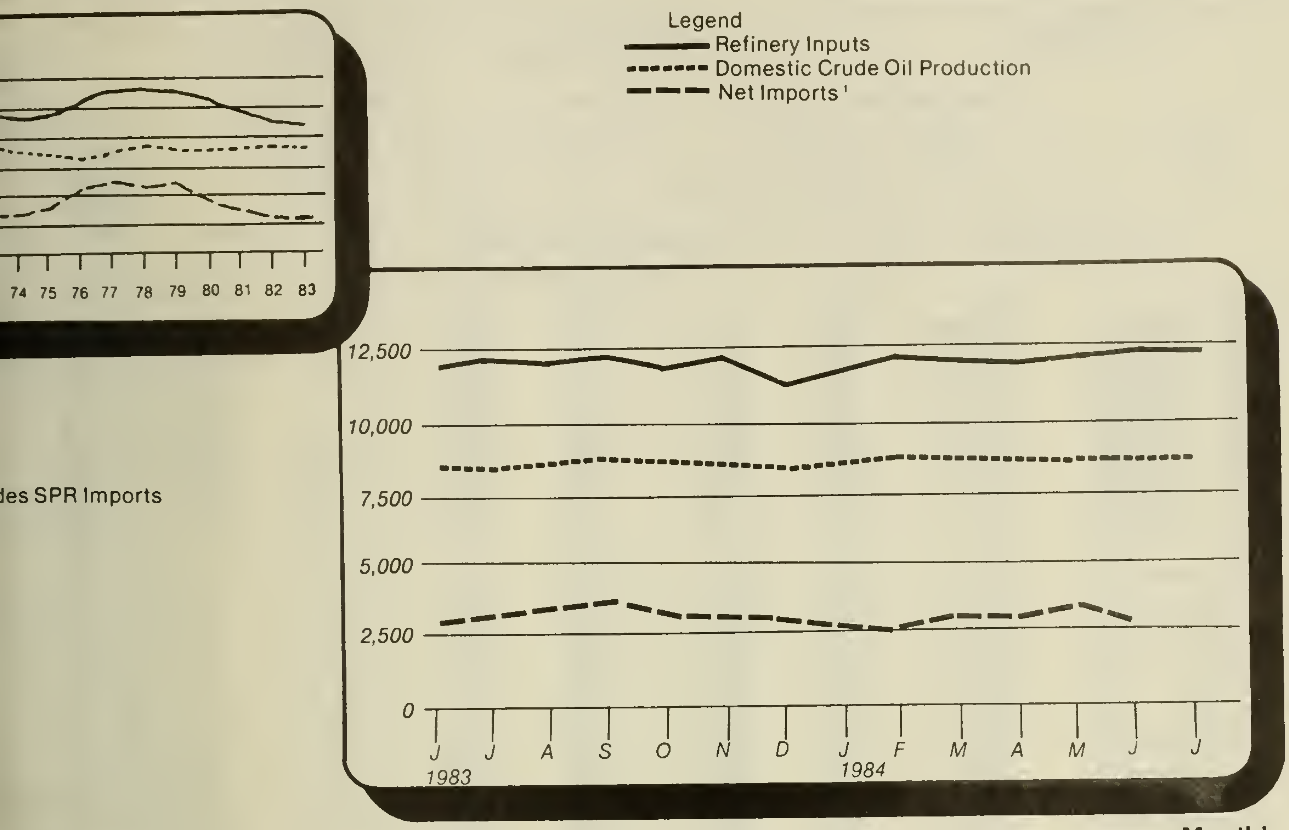
(Thousand Barrels Per Day)



¹ Liquefied Petroleum Gases

e Oil Supply and Disposition

and Barrels Per Day)

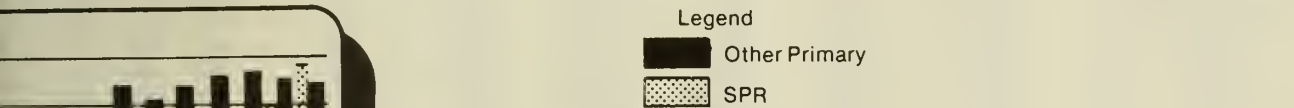


des SPR Imports

Monthly

e Oil Ending Stocks

n Barrels)



and width of Average Stock
s for other primary crude oil is
on 3 years of data. Jan. 81-Dec.
e Explanatory Note 6.

Monthly

Crude Oil[1] Supply and Disposition

		Supply							
		Field Production		Imports			Stock Withdrawal[3]		
		Total Domestic	Alaskan	Total	SPR[4]	Other	SPR[4]	Other	Unaccounted for Crude Oil
		Thousand Barrels per Day							
1973	**AVERAGE**	**9,208**	**198**	**3,244**		**3,244**		**11**	**3**
1974	**AVERAGE**	**8,774**	**193**	**3,477**		**3,477**		**-62**	**-25**
1975	**AVERAGE**	**8,375**	**191**	**4,105**		**4,105**		**-17**	**17**
1976	**AVERAGE**	**8,132**	**173**	**5,287**		**5,287**		**-39**	**77**
1977	**AVERAGE**	**8,245**	**464**	**6,615**	**21**	**6,594**	**-20**	**-150**	**-6**
1978	**AVERAGE**	**8,707**	**1,229**	**6,356**	**162**	**6,195**	**-163**	**84**	**-57**
1979	**AVERAGE**	**8,552**	**1,401**	**6,519**	**67**	**6,452**	**-67**	**-81**	**-11**
1980	**AVERAGE**	**8,597**	**1,617**	**5,263**	**44**	**5,219**	**-45**	**-52**	**34**
1981	**AVERAGE**	**8,572**	**1,609**	**4,396**	**256**	**4,141**	**-336**	[6] **46**	**83**
1982	January	8,509	1,705	3,693	170	3,523	-159	-242	101
	February	8,702	1,707	2,990	159	2,830	-213	-29	156
	March	8,667	1,696	2,874	185	2,689	-235	357	2
	April	8,591	1,691	2,849	190	2,659	-233	196	231
	May	8,683	1,707	3,309	204	3,105	-176	205	111
	June	8,646	1,665	3,836	105	3,732	-105	144	133
	July	8,658	1,710	4,248	97	4,150	-97	-50	-20
	August	8,634	1,697	3,851	208	3,643	-208	-232	189
	September	8,701	1,705	3,636	139	3,497	-143	406	-210
	October	8,701	1,706	3,670	216	3,454	-216	-332	249
	November	8,697	1,676	3,862	180	3,683	-179	-219	-124
	December	8,598	1,682	3,000	124	2,877	-125	252	35
	AVERAGE	**8,649**	**1,696**	**3,488**	**165**	**3,323**	**-174**	**38**	**71**
1983	January	8,697	1,732	2,964	219	2,746	-219	[6] -280	170
	February	8,758	1,717	2,267	197	2,070	-197	-123	262
	March	8,700	1,732	2,290	201	2,089	-184	267	31
	April	8,776	1,721	3,118	205	2,913	-197	-205	98
	May	8,631	1,662	3,360	289	3,071	-293	278	169
	June	8,667	1,687	3,577	190	3,387	-188	66	370
	July	8,636	1,715	3,871	274	3,597	-264	497	-167
	August	8,679	1,697	4,227	350	3,876	-358	-438	281
	September	8,784	1,738	4,210	309	3,901	-307	68	-30
	October	8,771	1,733	3,446	202	3,244	-201	-73	44
	November	8,770	1,720	3,337	171	3,166	-135	250	34
	December	8,397	1,711	3,213	193	3,020	-252	-78	117
	AVERAGE	**8,688**	**1,714**	**3,329**	**234**	**3,096**	**-234**	**20**	**114**
1984	January	8,659	1,741	3,029	200	2,829	-173	-169	451
	February	8,726	1,740	2,952	85	2,868	-96	282	487
	March	8,718	1,740	3,455	148	3,307	-147	145	66
	April	8,688	1,725	3,417	170	3,247	-170	-396	590
	May	8,752	1,793	3,927	246	3,681	-245	-371	463
	June*	8,743	1,792	R 3,410	R 309	R 3,101	R -309	R 214	490
	July**	8,769	1,769	*3,616*	*308*	*3,308*	*-319*	*79*	NA
	AVERAGE	**8,722**	**1,757**	**3,405**	**210**	**3,195**	**-209**	**-33**	**NA**

---

[1] Includes lease condensate.

[2] Stocks are totals as of end of period.

[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[4] Strategic Petroleum Reserve.

[5] Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.

[6] Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels. See Explanatory Notes 10 and 11.

Footnotes continued on following page.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Crude Oil[1] Supply and Disposition (continued)

	Supply	Disposition				Ending Stocks[2]		
	Crude Used Directly[5]	Crude Losses	Refinery Inputs	Exports	Products Supplied[5]	Total Crude Oil	SPR[4]	Other Primary
	Thousand Barrels per Day					Million Barrels		
1973 AVERAGE	**-19**	**13**	**12,431**	**2**	**NA**	**242**		**242**
1974 AVERAGE	**-15**	**13**	**12,133**	**3**	**NA**	**265**		**265**
1975 AVERAGE	**-17**	**13**	**12,442**	**6**	**NA**	**271**		**271**
1976 AVERAGE	**-18**	**15**	**13,416**	**8**	**NA**	**285**		**285**
1977 AVERAGE	**-14**	**16**	**14,602**	**50**	**NA**	**348**	**7**	**340**
1978 AVERAGE	**-14**	**16**	**14,739**	**158**	**NA**	**376**	**67**	**309**
1979 AVERAGE	**-13**	**16**	**14,648**	**235**	**NA**	**430**	**91**	**339**
1980 AVERAGE	**-13**	**15**	**13,481**	**287**	**NA**	[6] **466**	**108**	[6] **358**
1981 AVERAGE	**-58**	**5**	**12,470**	**228**	**NA**	**594**	**230**	**363**
1982 January	-63	3	11,599	238	NA	606	235	371
February	-64	2	11,236	304	NA	613	241	372
March	-63	5	11,276	321	NA	609	249	361
April	-65	3	11,392	174	NA	610	256	355
May	-62	3	11,806	262	NA	609	261	348
June	-60	7	12,494	94	NA	608	264	344
July	-60	3	12,446	229	NA	613	267	346
August	-57	2	11,871	304	NA	626	274	353
September	-56	4	12,146	184	NA	619	278	341
October	-51	2	11,749	270	NA	636	285	351
November	-51	1	11,724	262	NA	648	290	358
December	-53	1	11,514	193	NA	[6] 644	294	[6] 350
AVERAGE	**-59**	**3**	**11,774**	**236**	**NA**			
1983 January	NA	2	11,143	117	71	660	301	360
February	NA	3	10,633	262	71	669	306	363
March	NA	2	10,859	174	70	667	312	355
April	NA	2	11,433	88	68	679	318	361
May	NA	1	11,800	280	63	679	327	353
June	NA	(S)	12,284	144	64	683	332	351
July	NA	2	12,360	145	65	676	341	335
August	NA	1	12,152	172	64	700	352	349
September	NA	1	12,482	177	66	708	361	347
October	NA	1	11,782	140	63	716	367	349
November	NA	2	12,004	186	64	713	371	341
December	NA	1	11,234	95	67	723	379	344
AVERAGE	**NA**	**2**	**11,685**	**164**	**66**			
1984 January	NA	1	11,579	153	64	733	384	348
February	NA	1	12,100	185	65	727	387	340
March	NA	2	11,936	236	62	728	392	336
April	NA	(S)	11,893	172	64	744	397	348
May	NA	2	12,243	219	62	764	404	359
June*	NA	2	R 12,263	222	61	R 766	R 414	R 353
July**	NA	NA	*12,210*	NA	NA	*776*	*423*	*353*
AVERAGE	**NA**	**NA**	**12,031**	**NA**	**NA**			

Footnotes continued.

(S) = Less than 500 barrels per day.

* See Explanatory Note 9.2.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available.

Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Crude Oil and Petroleum Product Imports

	Imports from OPEC Sources[1]										
	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indo-nesia	Iran	Nigeria	Vene-zuela	Other OPEC[2]	Total OPEC	Total Arab OPEC[3]
	Thousand Barrels per Day										
1973 AVERAGE	**136**	**164**	**486**	**71**	**213**	**223**	**459**	**1,135**	**106**	**2,993**	**915**
1974 AVERAGE	**190**	**4**	**461**	**74**	**300**	**469**	**713**	**979**	**88**	**3,280**	**752**
1975 AVERAGE	**282**	**232**	**715**	**117**	**390**	**280**	**762**	**702**	**122**	**3,601**	**1,383**
1976 AVERAGE	**432**	**453**	**1,230**	**254**	**539**	**298**	**1,025**	**700**	**134**	**5,066**	**2,424**
1977 AVERAGE	**559**	**723**	**1,380**	**335**	**541**	**535**	**1,143**	**690**	**287**	**6,193**	**3,185**
1978 AVERAGE	**649**	**654**	**1,144**	**385**	**573**	**555**	**919**	**645**	**226**	**5,751**	**2,963**
1979 AVERAGE	**636**	**658**	**1,356**	**281**	**420**	**304**	**1,080**	**690**	**212**	**5,637**	**3,056**
1980 AVERAGE	**488**	**554**	**1,261**	**172**	**348**	**9**	**857**	**481**	**130**	**4,300**	**2,551**
1981 AVERAGE	**311**	**319**	**1,129**	**81**	**366**	**0**	**620**	**406**	**90**	**3,323**	**1,848**
1982 January	254	161	877	111	289	0	663	376	128	2,859	1,403
February	139	92	693	89	244	0	584	355	102	2,297	1,054
March	91	37	555	155	200	0	522	399	91	2,051	860
April	85	0	511	122	215	0	427	426	85	1,871	740
May	179	0	601	116	236	0	222	422	54	1,830	897
June	115	0	593	94	215	72	537	361	110	2,096	820
July	159	0	660	108	327	69	910	356	95	2,685	965
August	181	0	489	133	271	27	574	299	133	2,107	818
September	179	0	432	57	191	21	477	518	69	1,943	677
October	249	7	494	61	242	108	313	504	106	2,084	810
November	247	14	489	47	283	34	479	528	115	2,235	797
December	155	0	237	12	265	88	462	399	73	1,690	421
AVERAGE	**170**	**26**	**552**	**92**	**248**	**35**	**514**	**412**	**97**	**2,146**	**854**
1983 January	207	0	282	47	255	43	186	337	54	1,412	537
February	115	0	214	9	217	0	92	393	28	1,068	338
March	63	0	103	0	138	0	121	440	201	1,066	183
April	227	0	162	(s)	210	0	186	523	125	1,432	389
May	286	0	122	12	405	37	385	455	69	1,771	420
June	300	0	188	40	466	38	467	335	138	1,973	528
July	283	0	182	64	464	112	525	434	187	2,251	606
August	378	0	448	52	433	213	464	511	230	2,728	903
September	423	0	587	21	501	86	324	432	221	2,595	1,084
October	261	0	638	16	368	12	307	337	169	2,108	938
November	184	0	545	56	302	21	215	452	135	1,910	807
December	144	0	569	45	294	9	329	415	163	1,969	826
AVERAGE	**240**	**0**	**337**	**30**	**338**	**48**	**302**	**422**	**144**	**1,862**	**632**
1984 January	242	0	463	114	278	0	243	547	51	1,939	828
February	348	0	324	33	267	0	244	481	174	1,871	723
March	283	0	307	112	284	67	260	354	127	1,792	717
April	280	0	320	95	221	0	288	581	158	1,944	734
May	456	0	329	240	480	0	289	621	242	2,657	1,131
June	284	0	411	46	415	0	243	574	139	2,112	806
AVERAGE	**316**	**0**	**359**	**108**	**325**	**11**	**261**	**526**	**148**	**2,055**	**825**

---

[1] Excludes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

[2] Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

[3] Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

Footnotes continued on following page.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Crude Oil and Petroleum Product Imports (continued)

	Imports from Non-OPEC Sources [4]										
	Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non OPEC	Total Non OPEC	Total Imports
	Thousand Barrels per Day										
1973 AVERAGE	**174**	**1,325**	**16**	**585**	**255**	**15**	**99**	**329**	**465**	**3,263**	**6,256**
1974 AVERAGE	**164**	**1,070**	**8**	**511**	**251**	**8**	**90**	**391**	**340**	**2,832**	**6,112**
1975 AVERAGE	**152**	**846**	**71**	**332**	**242**	**14**	**90**	**406**	**300**	**2,454**	**6,056**
1976 AVERAGE	**118**	**599**	**87**	**275**	**274**	**31**	**88**	**422**	**353**	**2,247**	**7,313**
1977 AVERAGE	**171**	**517**	**179**	**211**	**289**	**126**	**105**	**466**	**550**	**2,614**	**8,807**
1978 AVERAGE	**160**	**467**	**318**	**229**	**253**	**180**	**94**	**429**	**484**	**2,613**	**8,363**
1979 AVERAGE	**147**	**538**	**439**	**231**	**190**	**202**	**92**	**431**	**548**	**2,819**	**8,456**
1980 AVERAGE	**78**	**455**	**533**	**225**	**176**	**176**	**88**	**388**	**491**	**2,609**	**6,909**
1981 AVERAGE	**74**	**447**	**522**	**197**	**133**	**375**	**62**	**327**	**534**	**2,672**	**5,996**
1982 January	58	513	425	179	106	346	62	334	452	2,474	5,332
February	67	537	476	221	120	181	38	362	508	2,510	4,807
March	43	437	503	189	118	294	62	307	480	2,433	4,484
April	82	360	476	184	166	247	36	266	690	2,507	4,378
May	77	419	766	152	95	516	47	302	607	2,981	4,811
June	32	481	797	148	129	557	58	322	708	3,231	5,327
July	64	536	783	158	118	433	38	376	698	3,204	5,890
August	80	443	853	145	106	520	24	317	650	3,137	5,244
September	92	493	897	195	89	631	51	278	746	3,472	5,414
October	45	459	682	148	109	666	52	262	801	3,222	5,306
November	51	553	860	212	90	623	81	334	706	3,508	5,744
December	88	561	689	174	102	438	48	336	480	2,916	4,606
AVERAGE	**65**	**482**	**685**	**175**	**112**	**456**	**50**	**316**	**627**	**2,968**	**5,113**
1983 January	68	534	849	228	73	314	40	299	621	3,026	4,438
February	92	586	722	183	81	193	50	192	558	2,658	3,726
March	86	488	775	187	78	240	43	162	565	2,624	3,690
April	174	454	981	216	85	421	20	183	759	3,295	4,727
May	135	518	944	153	108	484	42	235	699	3,318	5,089
June	137	586	830	173	120	440	48	262	757	3,353	5,326
July	69	634	849	198	107	369	37	364	864	3,490	5,741
August	144	542	906	197	90	461	40	313	738	3,431	6,159
September	148	533	849	261	82	475	33	307	845	3,534	6,129
October	171	532	771	172	106	414	48	357	580	3,151	5,258
November	148	556	726	144	110	334	55	427	801	3,300	5,210
December	127	604	710	153	113	429	22	278	628	3,063	5,033
AVERAGE	**125**	**547**	**826**	**189**	**96**	**382**	**40**	**282**	**701**	**3,189**	**5,051**
1984 January	152	624	705	277	54	382	53	390	772	3,408	5,347
February	142	620	747	288	77	338	58	418	1,083	3,772	5,643
March	88	726	707	169	93	400	34	247	996	3,460	5,253
April	88	691	859	207	91	282	37	257	863	3,375	5,319
May	31	715	675	192	57	418	38	336	796	3,259	5,916
June	50	499	732	234	104	318	53	268	934	3,192	5,304
AVERAGE	**92**	**647**	**737**	**227**	**79**	**357**	**45**	**319**	**905**	**3,408**	**5,463**

Footnotes continued.

[4] Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

(^{s}) = Less than 500 barrels per day.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Total may not equal sum of components due to independent rounding.

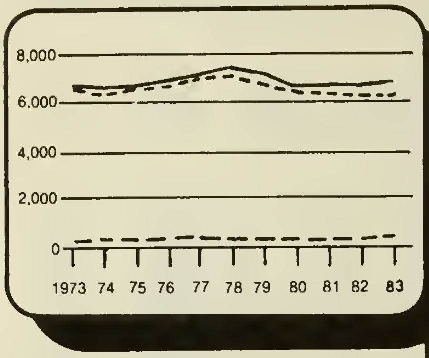
Geographic coverage: The 50 United States and the District of Columbia.

Source: See the last page of this section.

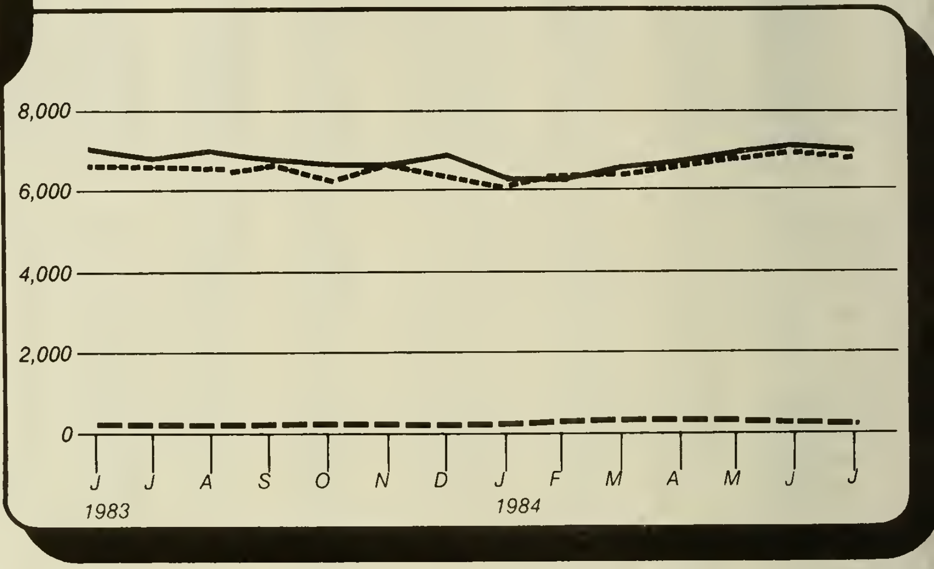
LIBRARY U. OF I. URBANA-CHAMPAIGN

Motor Gasoline Supply and Disposition

(Thousand Barrels Per Day)



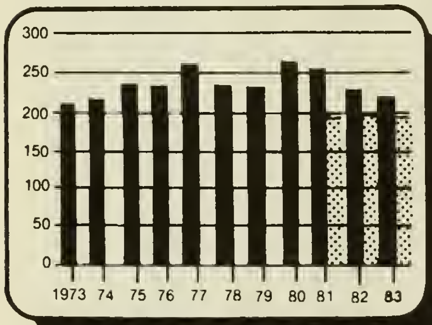
Annual



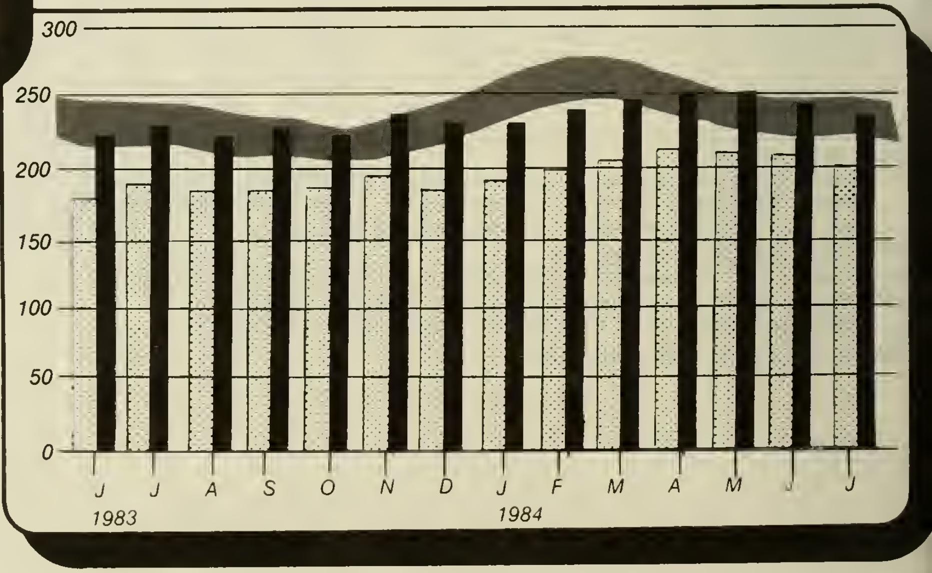
Monthly

Motor Gasoline Ending Stocks

(Million Barrels)



Annual



Monthly

[1] Includes motor gasoline blending components and finished motor gasoline.

[2] Level and width of Average Stock Range for total motor gasoline based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

shed Motor Gasoline Supply and Disposition

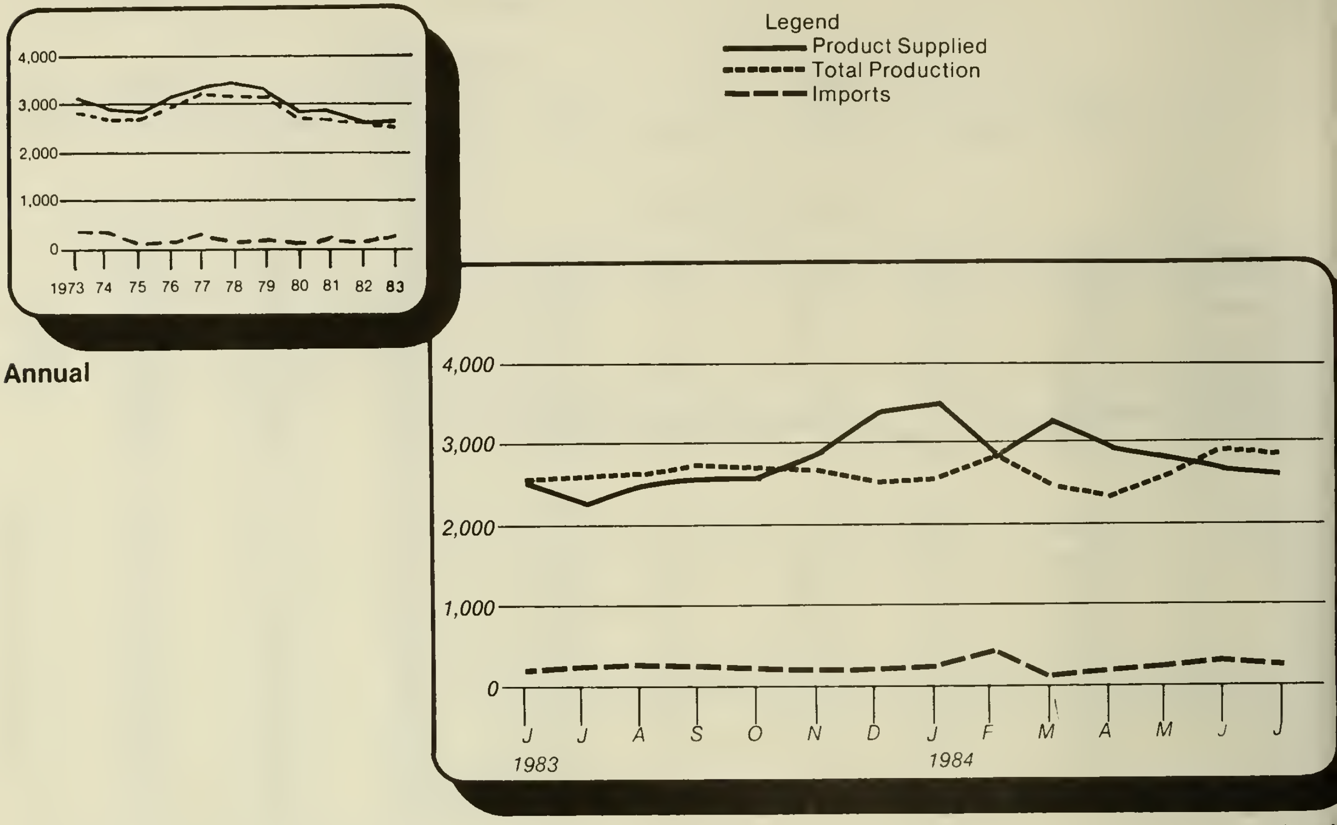
	Supply			Disposition				Ending Stocks[1]	
					Products Supplied				
	Total Production	Imports[2]	Stock Withdrawal[2] [3]	Exports	Total	Unleaded[4]	Unleaded	Total Motor Gasoline[5]	Finished Motor Gasoline
	Thousand Barrels per Day						Percent of Total	Million Barrels	
AVERAGE	**6,535**	**134**	**9**	**4**	**6,674**	**NA**	**NA**	**209**	
AVERAGE	**6,360**	**204**	**-24**	**2**	**6,537**	**NA**	**NA**	**[6] 218**	
AVERAGE	**6,520**	**184**	**[6] -28**	**2**	**6,675**	**NA**	**NA**	**235**	
AVERAGE	**6,841**	**131**	**10**	**3**	**6,978**	**NA**	**NA**	**231**	
AVERAGE	**7,033**	**217**	**-72**	**2**	**7,177**	**1,976**	**27.5**	**258**	
AVERAGE	**7,169**	**190**	**54**	**1**	**7,412**	**2,521**	**34.0**	**238**	
AVERAGE	**6,852**	**181**	**2**	(s)	**7,034**	**2,798**	**39.8**	**237**	
AVERAGE	**6,506**	**140**	**-66**	**1**	**6,579**	**3,067**	**46.6**	**[6] 261**	
AVERAGE[7]	**6,405**	**157**	**[6] 28**	**2**	**6,588**	**3,264**	**49.5**	**253**	
January	6,167	128	-316	18	5,961	3,067	51.5	261	213
February	5,899	133	172	8	6,196	3,210	51.8	257	208
March	5,994	183	334	44	6,466	3,358	51.9	247	198
April	6,095	185	650	33	6,897	3,495	50.7	221	179
May	6,319	182	177	23	6,655	3,415	51.3	214	173
June	6,754	230	-134	14	6,835	3,565	52.2	219	177
July	6,768	225	-178	24	6,790	3,577	52.7	226	183
August	6,419	291	-81	16	6,614	3,526	53.3	227	185
September	6,527	223	-198	22	6,531	3,404	52.1	234	191
October	6,262	185	-42	15	6,391	3,351	52.4	234	192
November	6,273	211	101	11	6,574	3,451	52.5	230	189
December	6,542	178	-165	7	6,549	3,485	53.2	[6] 235	[6] 194
AVERAGE	**6,338**	**197**	**25**	**20**	**6,539**	**3,409**	**52.1**		
January	6,065	153	[6] -167	(s)	6,051	3,364	55.6	250	207
February	5,848	128	24	(s)	6,000	3,264	54.4	250	207
March	5,906	186	768	23	6,836	3,622	53.0	223	183
April	6,201	255	-3	1	6,452	3,492	54.1	221	183
May	6,397	305	-83	1	6,617	3,558	53.8	223	185
June	6,655	277	84	22	6,994	3,792	54.2	223	183
July	6,707	302	-225	18	6,765	3,746	55.4	231	190
August	6,537	250	161	13	6,936	3,836	55.3	226	185
September	6,611	279	-149	14	6,727	3,691	54.9	229	189
October	6,188	330	72	2	6,588	3,711	56.3	227	187
November	6,634	269	-298	2	6,603	3,692	55.9	236	196
December	6,308	224	339	25	6,846	3,966	57.9	222	186
AVERAGE	**6,340**	**247**	**45**	**10**	**6,622**	**3,647**	**55.1**		
January	6,037	233	-1	1	6,268	3,606	57.5	225	186
February	6,320	303	-384	2	6,237	3,585	57.5	237	197
March	6,375	343	-197	9	6,512	3,747	57.5	243	203
April	6,528	308	-153	(s)	6,682	3,854	57.7	248	207
May	6,650	329	-106	(s)	6,873	3,990	58.1	253	211
June*	R 6,620	R 272	R 217	17	R 7,092	4,210	59.4	R 245	R 204
July**	*6,537*	*231*	*319*	NA	*7,087*	NA	NA	*236*	*198*
AVERAGE	**6,438**	**288**	**-41**	**NA**	**6,681**	**NA**	**NA**		

Stocks are totals as of end of period.
Beginning in 1981, excludes blending components.
A negative number indicates an increase in stocks and a positive number indicates a decrease.
Includes gasohol.
Includes motor gasoline blending components.
In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.
Beginning in January 1981, survey forms were modified. See Explanatory Note 12.
See Explanatory Note 9.3.
Italics denote estimates based upon preliminary data. See Explanatory Note 8.
= Revised data. NA = Not available. (s) = Less than 500 barrels per day.
te: Geographic coverage is the 50 United States and the District of Columbia.
tal may not equal sum of components due to independent rounding.
urce: See the last page of this section.

LIBRARY U. OF I. URBANA-CHAMPAIGN

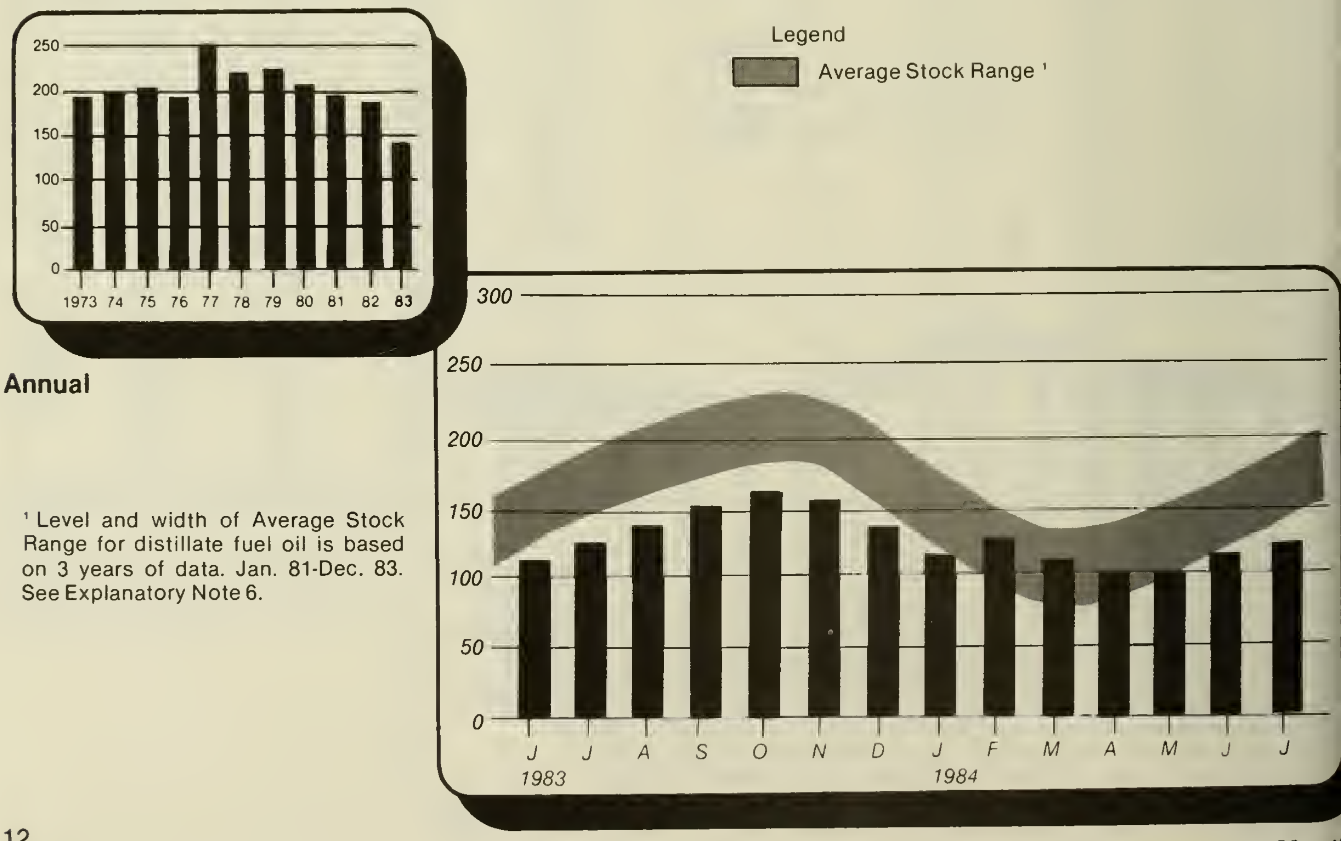
Distillate Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



Distillate Fuel Oil Ending Stocks

(Million Barrels)



[1] Level and width of Average Stock Range for distillate fuel oil is based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

Distillate Fuel Oil Supply and Disposition

	Supply				Disposition		Ending Stocks[1]
	Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Products Supplied[3]	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**2,822**	**392**	**-115**	**2**	**9**	**3,092**	**196**
1974 AVERAGE	**2,669**	**289**	**-9**	**2**	**2**	**2,948**	**[4] 200**
1975 AVERAGE	**2,654**	**155**	**[4] 40**	**2**	**1**	**2,851**	**209**
1976 AVERAGE	**2,924**	**146**	**62**	**1**	**1**	**3,133**	**186**
1977 AVERAGE	**3,278**	**250**	**-176**	**1**	**1**	**3,352**	**250**
1978 AVERAGE	**3,167**	**173**	**93**	**1**	**3**	**3,432**	**216**
1979 AVERAGE	**3,153**	**193**	**-34**	**1**	**3**	**3,311**	**229**
1980 AVERAGE	**2,662**	**142**	**64**	**1**	**3**	**2,866**	**[4] 205**
1981 AVERAGE[5]	**2,613**	**173**	**[4] 38**	**10**	**5**	**2,829**	**192**
1982 January	2,591	97	876	10	90	3,484	164
February	2,427	132	605	11	90	3,085	147
March	2,288	48	682	10	84	2,945	126
April	2,358	59	612	13	64	2,978	108
May	2,618	74	-183	10	75	2,444	114
June	2,729	102	-335	10	55	2,452	124
July	2,734	125	-789	11	24	2,058	148
August	2,507	80	-339	10	40	2,218	159
September	2,657	61	-85	12	139	2,507	161
October	2,838	91	-289	8	66	2,581	170
November	2,860	145	-514	8	24	2,475	186
December	2,655	109	225	10	143	2,855	**[4] 179**
AVERAGE	**2,606**	**93**	**35**	**10**	**74**	**2,671**	
1983 January	2,321	68	**[4] 580**	NA	173	2,797	168
February	2,135	59	691	NA	105	2,780	148
March	1,993	42	971	NA	59	2,947	118
April	2,171	73	500	NA	47	2,697	103
May	2,444	147	-186	NA	50	2,354	109
June	2,546	179	-161	NA	40	2,524	114
July	2,604	267	-546	NA	55	2,270	131
August	2,615	301	-379	NA	43	2,495	142
September	2,739	259	-386	NA	37	2,575	154
October	2,681	260	-276	NA	55	2,611	163
November	2,680	203	45	NA	54	2,874	161
December	2,522	221	676	NA	54	3,365	140
AVERAGE	**2,456**	**174**	**124**	**NA**	**64**	**2,690**	
1984 January	2,585	270	676	NA	40	3,490	119
February	2,864	458	-439	NA	41	2,842	132
March	2,480	115	727	NA	66	3,256	110
April	2,347	220	393	NA	32	2,929	98
May	2,633	252	-10	NA	48	2,827	98
June*	R 2,879	R 266	R -490	NA	53	R 2,602	R113
July**	*2,797*	*190*	*-368*	NA	NA	*2,577*	*125*
AVERAGE	**2,653**	**251**	**76**	**NA**	**NA**	**2,934**	

---

[1] Stocks are totals as of end of period.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 4.

[4] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

[5] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

Note: Geographic coverage is the 50 United States and the District of Columbia.

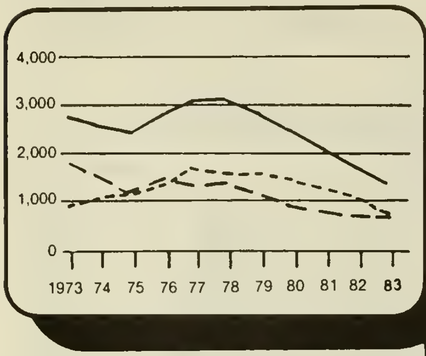
Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

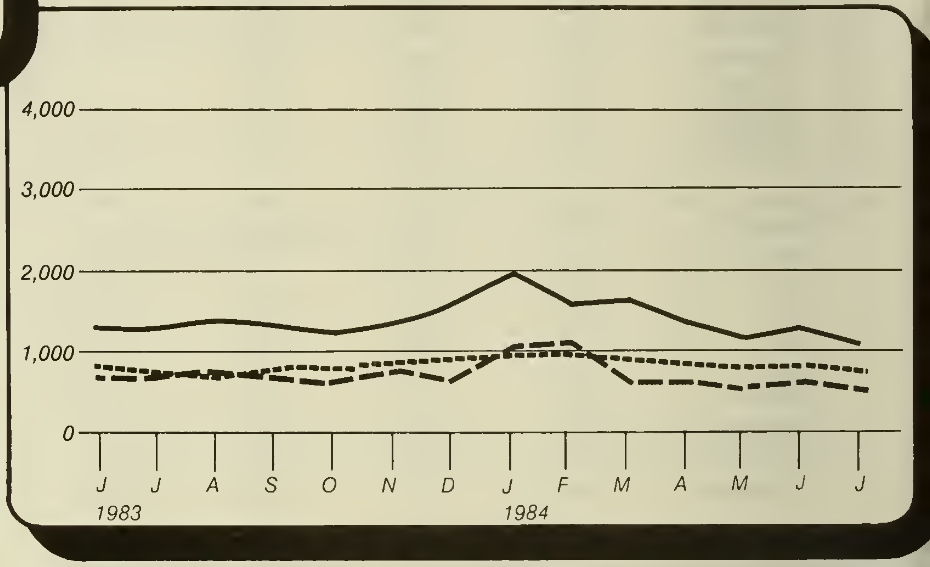
LIBRARY U. OF I. URBANA-CHAMPAIGN

Residual Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



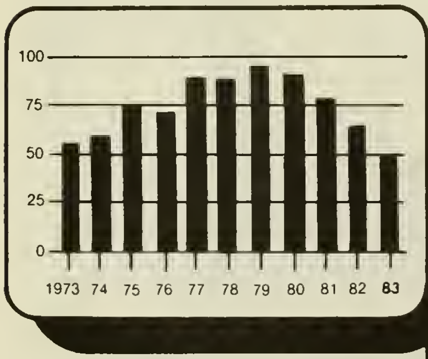
Annual



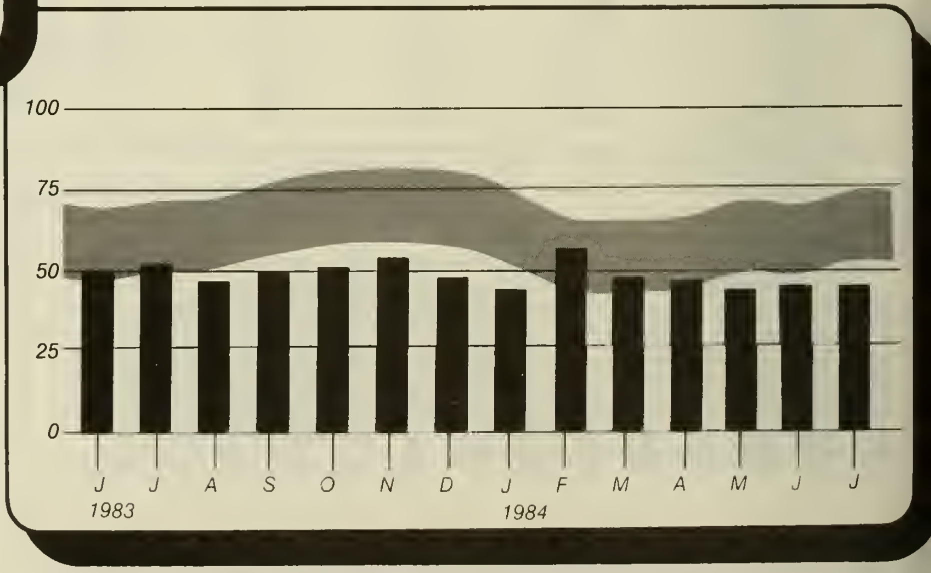
Monthl

Residual Fuel Oil Ending Stocks

(Million Barrels)



Annual



Monthl

[1] Level and width of Average Stock Range for residual fuel oil based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

Residual Fuel Oil Supply and Disposition

	Supply				Disposition		Ending Stocks[1]
	Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Products Supplied[3]	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**971**	**1,853**	**5**	**17**	**23**	**2,822**	**53**
1974 AVERAGE	**1,070**	**1,587**	**-17**	**13**	**14**	**2,639**	[4] **60**
1975 AVERAGE	**1,235**	**1,223**	[4] **2**	**15**	**15**	**2,462**	**74**
1976 AVERAGE	**1,377**	**1,413**	**5**	**17**	**12**	**2,801**	**72**
1977 AVERAGE	**1,754**	**1,359**	**-48**	**13**	**6**	**3,071**	**90**
1978 AVERAGE	**1,667**	**1,355**	**-1**	**13**	**13**	**3,023**	**90**
1979 AVERAGE	**1,687**	**1,151**	**-15**	**12**	**9**	**2,826**	**96**
1980 AVERAGE	**1,580**	**939**	**10**	**12**	**33**	**2,508**	[4] **92**
1981 AVERAGE[5]	**1,321**	**800**	[4] **37**	**48**	**118**	**2,088**	**78**
1982 January	1,235	831	301	53	235	2,185	69
February	1,186	956	363	53	213	2,344	58
March	1,123	912	12	53	197	1,903	58
April	1,166	788	150	52	234	1,923	54
May	1,128	742	-172	52	191	1,560	59
June	1,074	652	-57	50	217	1,501	61
July	1,028	657	56	49	239	1,550	59
August	965	551	203	47	235	1,531	53
September	1,008	872	-306	44	148	1,470	62
October	955	783	-57	43	234	1,490	64
November	989	837	-94	43	182	1,591	66
December	989	747	6	43	186	1,598	[4] **66**
AVERAGE	**1,070**	**776**	**32**	**48**	**209**	**1,716**	
1983 January	972	691	[4] **258**	NA	294	1,626	61
February	857	647	257	NA	191	1,570	53
March	835	686	227	NA	169	1,579	46
April	941	753	-10	NA	310	1,374	47
May	936	738	-141	NA	190	1,342	51
June	828	677	36	NA	218	1,323	50
July	769	684	-64	NA	90	1,299	52
August	710	739	115	NA	165	1,400	48
September	826	706	-47	NA	134	1,351	50
October	807	638	-50	NA	153	1,243	51
November	845	780	-97	NA	167	1,362	54
December	897	649	182	NA	141	1,587	49
AVERAGE	**852**	**699**	**55**	**NA**	**185**	**1,421**	
1984 January	953	1,061	119	NA	151	1,981	45
February	1,003	1,107	-420	NA	87	1,602	58
March	887	633	321	NA	204	1,637	48
April	840	637	9	NA	130	1,357	47
May	829	554	35	NA	200	1,218	46
June*	R 841	R 676	R -17	NA	176	R 1,324	R 47
July**	*749*	*551*	*-84*	NA	NA	*1,043*	*47*
AVERAGE	**871**	**743**	**-1**	**NA**	**NA**	**1,451**	

---

[1] Stocks are totals as of end of period.

[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[3] Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 4.

[4] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

[5] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

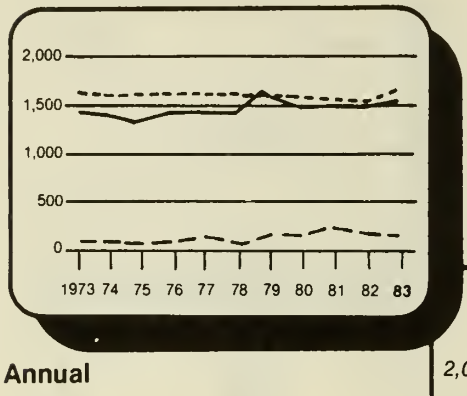
Note: Geographic coverage is the 50 United States and the District of Columbia.

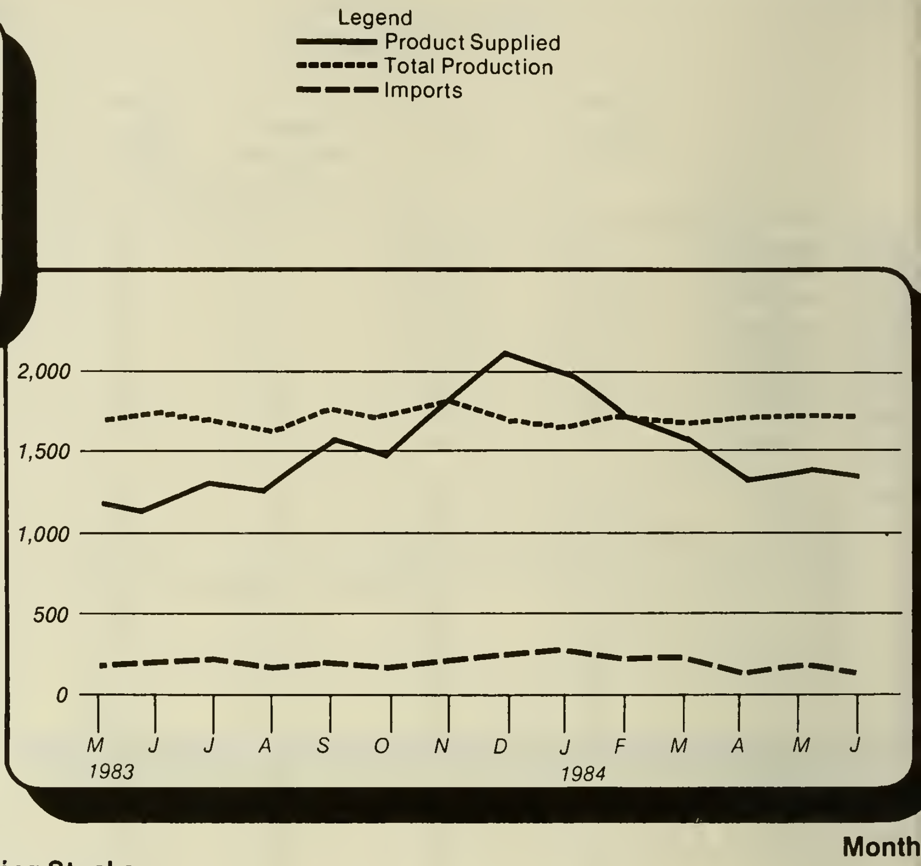
Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Liquefied Petroleum Gases Supply and Disposition

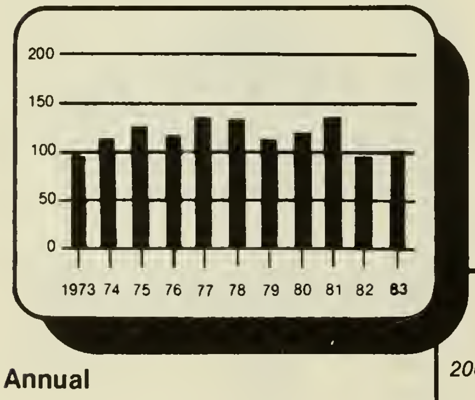
(Thousand Barrels Per Day)

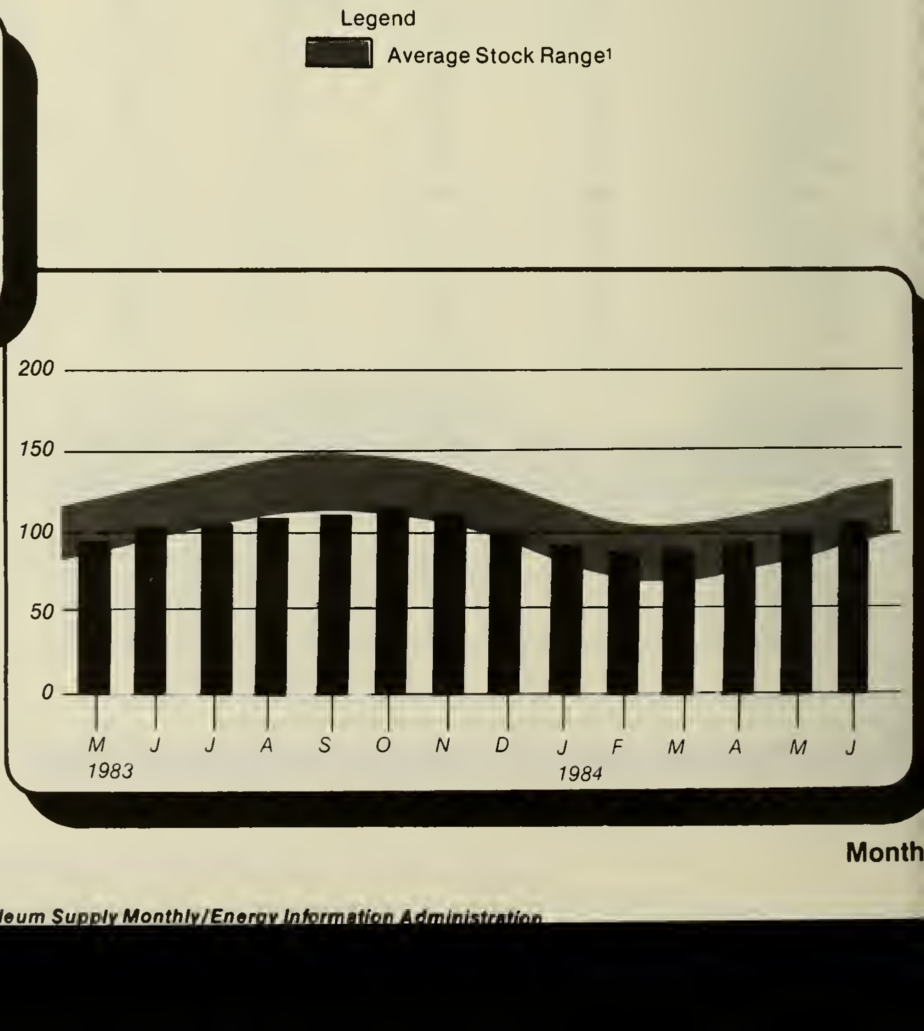




Liquefied Petroleum Gases Ending Stocks

(Million Barrels)





---

[1] Level and width of Average Stock range for liquefied petroleum gases based on 3 years of data. Jan. 81-Dec. 83. See Explanatory Note 6.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Liquefied Petroleum Gases[1] Supply and Disposition

	Supply			Disposition			Ending Stocks[2]
	Total Production	Imports	Stock Withdrawal[3]	Refinery Inputs	Exports	Products Supplied	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**1,600**	**132**	**-35**	**220**	**27**	**1,449**	**99**
1974 AVERAGE	**1,565**	**123**	**-38**	**220**	**25**	**1,406**	[4] **113**
1975 AVERAGE	**1,527**	**112**	[4] **-35**	**246**	**26**	**1,333**	**125**
1976 AVERAGE	**1,535**	**130**	**24**	**260**	**25**	**1,404**	**116**
1977 AVERAGE	**1,566**	**161**	**-55**	**233**	**18**	**1,422**	**136**
1978 AVERAGE	**1,537**	**123**	**12**	**239**	**20**	**1,413**	**132**
1979 AVERAGE	**1,556**	**217**	**70**	**236**	**15**	**1,592**	**111**
1980 AVERAGE	**1,535**	**216**	**-27**	**233**	**21**	**1,469**	[4] **120**
1981 AVERAGE	**1,571**	**244**	[4] **-18**	**289**	**42**	**1,466**	**135**
1982 January	1,565	314	443	391	67	1,863	121
February	1,466	291	243	327	51	1,621	114
March	1,544	223	211	289	74	1,615	108
April	1,506	188	98	257	77	1,458	105
May	1,565	186	-71	234	43	1,403	107
June	1,515	192	-86	262	106	1,254	109
July	1,476	227	-13	253	37	1,399	110
August	1,511	125	-45	254	61	1,276	111
September	1,538	247	37	274	85	1,463	110
October	1,517	194	97	306	81	1,421	107
November	1,542	267	175	363	37	1,583	102
December	1,580	258	256	395	56	1,642	[4] 94
AVERAGE	**1,528**	**226**	**111**	**300**	**65**	**1,499**	
1983 January	1,611	240	[4] 520	313	118	1,939	86
February	1,600	305	128	244	76	1,713	82
March	1,543	166	-9	197	127	1,377	82
April	1,607	124	-156	198	116	1,260	87
May	1,613	167	-225	207	84	1,263	94
June	1,664	172	-334	203	59	1,241	104
July	1,656	191	-221	217	55	1,354	111
August	1,586	160	-199	229	29	1,289	117
September	1,705	178	-30	236	36	1,531	118
October	1,688	160	-81	268	32	1,467	120
November	1,785	180	70	362	33	1,640	118
December	1,645	247	575	363	66	2,038	[4] 101
AVERAGE	**1,642**	**190**	**4**	**253**	**73**	**1,509**	
1984 January	1,610	269	[4] 470	333	23	1,993	93
February	1,690	237	146	323	41	1,708	89
March	1,685	241	12	289	68	1,581	89
April	1,711	155	-170	253	54	1,389	94
May	1,709	211	-221	244	42	1,412	101
June*	1,714	158	-189	237	53	1,394	106
AVERAGE	**1,686**	**212**	**9**	**280**	**47**	**1,580**	

---

[1] Includes ethane, propane, normal butane, and isobutane. Beginning in January 1984, unfractionated stream is reported by individual product.

[2] Stocks are totals as of end of period.

[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[4] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Other Petroleum Products[1] Supply and Disposition

	Supply			Disposition			Ending Stocks[2]
	Total Production	Imports	Stock Withdrawal[3]	Refinery Inputs	Exports	Products Supplied	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**3,693**	**502**	**-9**	**750**	**166**	**3,270**	**208**
1974 AVERAGE	**3,558**	**432**	**-28**	**665**	**174**	**3,123**	[4] **218**
1975 AVERAGE	**3,424**	**277**	[4] **-2**	**537**	**160**	**3,002**	**219**
1976 AVERAGE	**3,643**	**206**	**-5**	**524**	**175**	**3,145**	**220**
1977 AVERAGE	**3,912**	**205**	**-27**	**514**	**165**	**3,410**	**230**
1978 AVERAGE	**4,046**	**166**	**14**	**492**	**167**	**3,568**	**225**
1979 AVERAGE	**4,153**	**195**	**-37**	**352**	**209**	**3,749**	**238**
1980 AVERAGE	**3,956**	**210**	**-23**	**311**	**198**	**3,634**	[4] **247**
1981 AVERAGE	**3,739**	**226**	[4] **46**	**723**	**199**	**3,088**	**282**
1982 January	3,171	269	-7	624	180	2,631	282
February	3,403	305	-153	663	138	2,755	287
March	3,466	243	-191	725	161	2,631	293
April	3,408	309	73	796	204	2,790	290
May	3,317	318	184	824	210	2,785	285
June	3,547	315	123	812	216	2,954	281
July	3,660	408	-1	856	187	3,023	281
August	3,583	346	217	743	202	3,201	274
September	3,533	375	105	749	213	3,051	271
October	3,529	383	244	915	266	2,976	264
November	3,498	423	-28	837	269	2,786	264
December	3,324	313	366	885	275	2,842	[4] 253
AVERAGE	**3,453**	**334**	**80**	**787**	**211**	**2,869**	
1983 January	3,194	322	[4] -419	588	271	2,239	271
February	3,229	321	12	673	232	2,658	270
March	3,381	319	-147	572	249	2,732	275
April	3,299	404	-24	592	247	2,840	276
May	3,405	374	35	705	242	2,866	275
June	3,610	444	96	717	292	3,144	272
July	3,636	425	148	735	209	3,265	267
August	3,695	482	30	668	242	3,297	266
September	3,792	497	-6	788	236	3,255	266
October	3,578	424	-107	711	195	2,990	270
November	3,568	441	95	912	238	2,957	267
December	3,123	479	361	883	257	2,823	[4] 256
AVERAGE	**3,460**	**411**	**6**	**712**	**242**	**2,923**	
1984 January	3,391	486	[4] -177	561	207	2,931	253
February	3,582	586	-256	751	225	2,935	261
March	3,510	466	-218	530	258	2,969	268
April	3,584	582	-207	627	268	3,063	274
May	3,683	642	-118	775	257	3,175	277
June*	3,863	521	404	1,229	343	3,213	265
AVERAGE	**3,601**	**547**	**-97**	**743**	**259**	**3,048**	

---

[1] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[2] Stocks are totals as of end of period.

[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.

[4] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

* See Explanatory Note 9.6.

Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Sources

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual.*

2. 1977 through 1980: Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report.*

3. January 1981 through December 1983: EIA, *Petroleum Supply Annual.*

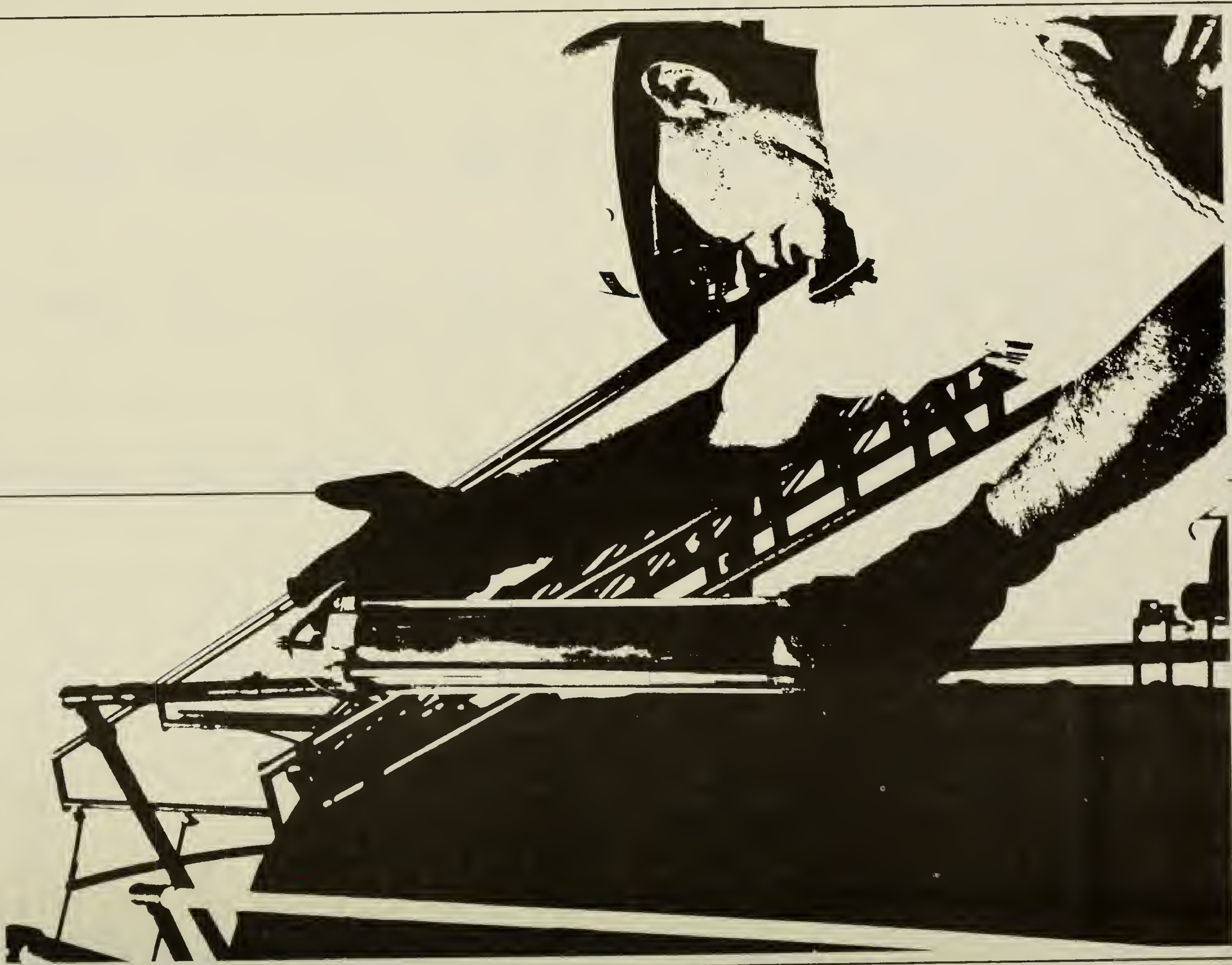
4. January 1984 through June 1984: Detailed statistics in appropriate issues of the *Petroleum Supply Monthly.* (See Explanatory Notes 9.1 through 9.6).

5. July 1984: Estimates based on EIA weekly data (except domestic crude oil production) (see Explanatory Note 1.1).

6. January 1984 through July 1984: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey. (See Explanatory Note 3).

LIBRARY U. OF I. URBANA-CHAMPAIGN

Detailed Statistics



LIBRARY U. OF I. URBANA-CHAMPAIGN

. U.S. Petroleum Balance, June 1984

	Current Month		Year-to-date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
e Oil (Including Lease Condensate)				
ld Production				
aska	E 53,769	1,792	E 319,458	1,755
wer 48 States	E 208,521	6,951	E 1,266,490	6,959
otal U.S.	E 262,290	8,743	E 1,585,948	8,714
t Imports				
nports (Gross Excluding SPR)	93,044	3,101	577,950	3,176
PR Imports	9,267	309	35,207	193
xports	6,665	222	35,993	198
mports (Net Including SPR)	95,646	3,188	577,165	3,171
ner Sources				
PR Withdrawal (+) or Addition (-)	-9,257	-309	-34,646	-190
ther Stock Withdrawal (+) or Addition (-)	6,421	214	-9,516	-52
roduct Supplied and Losses	-1,909	-64	-11,730	-64
Unaccounted for [1]	14,710	490	76,878	422
Total Other Sources	9,965	332	20,986	115
de Input to Refineries	367,901	12,263	2,184,099	12,001
= (3) + (7) + (12)				
ral Gas Plant Liquids (NGPL)				
eld Production	48,374	1,612	292,381	1,606
et Imports [2]	863	29	7,044	39
ock Withdrawal (+) or Addition (-) [2]	-476	-16	-1,756	-10
Total NGPL Supply	48,761	1,625	297,669	1,636
er Liquids				
finished Oils and Gasoline Blending Components, Total				
Stock Withdrawal (+) or Addition (-)	12,204	407	-7,712	-42
mports	9,060	302	58,249	320
ther Hydrocarbons and Alcohol New Supply (Field Production)	1,261	42	8,470	47
efinery Processing Gain [1]	16,010	534	100,405	552
rude Oil Product Supplied	1,842	61	11,468	63
Total Other Liquids	40,377	1,346	170,880	939
23) = (18) through (22)				
al Production of Products [3]	457,039	15,235	2,652,648	14,575
= (13) + (17) + (23)				
Imports of Refined Products [3]				
nports (Gross)	46,799	1,560	315,369	1,733
xports	19,180	639	93,594	514
Imports (Net)	27,619	-921	221,775	1,219
al New Supply of Products	484,658	16,155	2,874,423	15,794
= (24) + (27)				
ined Products Stock Withdrawal (+) or Addition (-) [3]	-14,052	-468	4,555	25
al Petroleum Products Supplied for Domestic Use	470,605	15,687	2,878,978	15,819
= (28) + (29)				
nished Motor Gasoline	212,767	7,092	1,203,308	6,612
istillate Fuel Oil	78,069	2,602	545,117	2,995
esidual Fuel Oil	39,712	1,324	276,778	1,521
quefied Petroleum Gases	41,824	1,394	287,579	1,580
ther [4]	96,391	3,213	554,728	3,048
rude Oil	1,842	61	11,468	63
Total Product Supplied	470,605	15,687	2,878,978	15,819
37) = (31) through (36)				
ing Stocks, All Oils				
rude Oil and Lease Condensate (Excluding SPR)	352,692	--	352,692	--
trategic Petroleum Reserve (SPR)	413,735	--	413,735	--
nfinished Oils	110,781	--	110,781	--
asoline Blending Components [5]	41,951	--	41,951	--
entanes Plus	10,521	--	10,521	--
inished Refined Products [3]	572,495	--	572,495	--
Total Stocks	1,502,175	--	1,502,175	--

---

balancing item.
cludes products in the pentanes plus category only.
r products included see Explanatory Note 9.7.
cludes pentanes plus, other liquids, and all finished petroleum
roducts except finished motor gasoline, distillate fuel oil, residual fuel
l and liquefied petroleum gases.
cludes other hydrocarbons and alcohol.
Estimated.
Not Applicable.
: Total may not equal sum of components due to independent rounding.
ces and estimation procedures: See Explanatory Notes 1, 2 and 9.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, June 1984 (Thousand Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 262,290	0	102,311	-2,836	14,710	67	367,901	6,665	1,842	766,427
Natural Gas Liquids and LRGs	48,191	12,077	5,679	-6,137	0	0	13,309	1,657	44,844	116,729
Pentanes Plus	8,834	0	941	-476	0	0	6,201	79	3,020	10,521
Liquefied Petroleum Gases	39,357	12,077	4,738	-5,661	0	0	7,108	1,579	41,824	106,208
Ethane	14,887	432	1,761	110	0	0	53	157	16,979	21,202
Propane	15,457	8,604	1,410	-4,476	0	0	107	1,010	19,878	55,326
Normal Butane	6,008	3,059	948	-523	0	0	3,450	333	5,709	19,703
Isobutane	3,005	-18	619	-772	0	0	3,498	79	-742	9,977
Other Liquids	1,261	0	9,060	12,204	0	0	30,670	0	-8,145	152,732
Other Hydrocarbons and Alcohol	1,261	0	0	-62	0	0	1,199	0	0	330
Unfinished Oils	0	0	6,875	11,440	0	0	26,344	0	-8,029	110,781
Motor Gasoline Blending Components	0	0	2,185	767	0	0	3,068	0	-116	41,294
Aviation Gasoline Blending Components	0	0	0	59	0	0	59	0	0	327
Finished Petroleum Products	183	415,813	42,061	-8,391	0	0	0	17,602	432,064	466,287
Finished Motor Gasoline	75	198,523	8,165	6,519	0	0	0	514	212,767	204,173
Finished Leaded Motor Gasoline	48	79,841	2,629	4,475	0	0	0	514	86,478	96,676
Finished Unleaded Motor Gasoline	27	118,682	5,536	2,044	0	0	0	0	126,289	107,497
Finished Aviation Gasoline	0	999	234	-63	0	0	0	0	1,170	2,358
Naphtha-Type Jet Fuel	0	6,272	485	-328	0	0	0	81	6,348	6,906
Kerosene-Type Jet Fuel	0	27,340	843	-1,661	0	0	0	191	26,330	36,000
Kerosene	0	2,863	273	-275	0	0	0	6	2,856	7,887
Distillate Fuel Oil	40	86,343	7,985	-14,710	0	0	0	1,589	78,069	112,868
Residual Fuel Oil	0	25,224	20,283	-520	0	0	0	5,275	39,712	46,811
Naphtha < 400 Deg. for Petro. Feed. Use	0	4,378	1,044	-203	0	0	0	211	5,008	1,942
Other Oils > 400 Deg. for Petro. Feed. Use	0	8,356	0	212	0	0	0	841	7,727	1,962
Special Naphthas	0	1,694	1,606	-180	0	0	0	291	2,829	3,023
Lubricants	0	4,895	374	-127	0	0	0	476	4,666	11,058
Waxes	0	471	41	-37	0	0	0	37	438	593
Petroleum Coke	0	13,671	0	343	0	0	0	8,062	5,952	4,558
Asphalt and Road Oil	0	15,024	113	2,711	0	0	0	4	17,844	23,901
Still Gas	0	18,010	0	0	0	0	0	0	18,010	0
Miscellaneous Products	68	1,750	616	-72	0	0	0	23	2,340	2,247
Total	311,925	427,890	159,111	-5,160	14,710	67	411,880	25,924	470,605	1,502,175

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products, January - June 1984
(Thousand Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 1,585,948	0	613,157	-44,162	76,878	262	2,184,099	35,993	11,468	766,427
Natural Gas Liquids and LRGs	291,281	67,511	46,160	-207	0	0	86,409	9,016	309,320	116,729
Pentanes Plus	51,920	0	7,537	-1,756	0	0	35,466	493	21,742	10,521
Liquefied Petroleum Gases	239,361	67,511	38,623	1,549	0	0	50,943	8,523	287,579	106,208
Ethane	90,988	4,173	16,038	177	0	0	389	986	110,001	21,202
Propane	94,246	50,560	12,045	-46	0	0	727	4,876	151,202	55,326
Normal Butane	36,439	12,889	6,380	686	0	0	28,598	2,168	25,628	19,703
Isobutane	17,688	-111	4,161	732	0	0	21,229	493	749	9,977
Other Liquids	8,470	0	58,249	-7,712	0	0	99,836	0	-40,829	152,732
Other Hydrocarbons and Alcohol	8,470	0	0	-45	0	0	8,425	0	0	330
Unfinished Oils	0	0	45,052	-3,283	0	0	72,693	0	-30,924	110,781
Motor Gasoline Blending Components	0	0	13,197	-4,374	0	0	18,728	0	-9,905	41,294
Aviation Gasoline Blending Components	0	0	0	-10	0	0	-10	0	0	327
Finished Petroleum Products	1,100	2,403,238	276,746	3,006	0	0	0	85,072	2,599,018	466,287
Finished Motor Gasoline	493	1,168,156	54,228	-18,678	0	0	0	891	1,203,308	204,173
Finished Leaded Motor Gasoline	325	482,163	26,772	-2,592	0	0	0	891	505,778	96,676
Finished Unleaded Motor Gasoline	168	685,993	27,455	-16,086	0	0	0	0	697,530	107,497
Finished Aviation Gasoline	0	4,397	279	-67	0	0	0	0	4,609	2,358
Naphtha-Type Jet Fuel	0	36,406	3,536	-693	0	0	0	175	39,074	6,906
Kerosene-Type Jet Fuel	0	162,282	8,839	-3,632	0	0	0	769	166,719	36,000
Kerosene	6	20,071	1,458	-27	0	0	0	17	21,491	7,887
Distillate Fuel Oil	238	478,247	47,631	27,534	0	0	0	8,533	545,117	112,868
Residual Fuel Oil	0	162,219	141,175	2,297	0	0	0	28,913	276,778	46,811
Naphtha < 400 Deg. for Petro. Feed. Use	0	24,607	5,079	-230	0	0	0	1,292	28,165	1,942
Other Oils > 400 Deg. for Petro. Feed. Use	0	49,329	0	-205	0	0	0	3,022	46,102	1,962
Special Naphthas	-50	10,132	9,401	130	0	0	0	546	19,067	3,023
Lubricants	0	29,002	1,922	1,017	0	0	0	3,092	28,849	11,058
Waxes	0	2,622	260	184	0	0	0	230	2,835	593
Petroleum Coke	0	81,894	0	923	0	0	0	37,362	45,455	4,558
Asphalt and Road Oil	0	59,388	249	-5,109	0	0	0	50	54,478	23,901
Still Gas	0	102,909	0	0	0	0	0	0	102,909	0
Miscellaneous Products	413	11,577	2,689	-438	0	0	0	180	14,061	2,247
Total	1,886,799	2,470,749	994,312	-49,075	76,878	262	2,370,344	130,080	2,878,978	1,502,175

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, June 1984 (Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,743	0	3,410	-95	490	2	12,263	222	61
Natural Gas Liquids and LRGs	**1,606**	**403**	**189**	**-205**	**0**	**0**	**444**	**55**	**1,495**
Pentanes Plus	294	0	31	-16	0	0	207	3	101
Liquefied Petroleum Gases	1,312	403	158	-189	0	0	237	53	1,394
Ethane	496	14	59	4	0	0	2	5	566
Propane	515	287	47	-149	0	0	4	34	663
Normal Butane	200	102	32	-17	0	0	115	11	190
Isobutane	100	-1	21	-26	0	0	117	3	-25
Other Liquids	**42**	**0**	**302**	**407**	**0**	**0**	**1,022**	**0**	**-272**
Other Hydrocarbons and Alcohol	42	0	0	-2	0	0	40	0	0
Unfinished Oils	0	0	229	381	0	0	878	0	-268
Motor Gasoline Blending Components	0	0	73	26	0	0	102	0	-4
Aviation Gasoline Blending Components	0	0	0	2	0	0	2	0	0
Finished Petroleum Products	**6**	**13,860**	**1,402**	**-280**	**0**	**0**	**0**	**587**	**14,402**
Finished Motor Gasoline	3	6,617	272	217	0	0	0	17	7,092
Finished Leaded Motor Gasoline	2	2,661	88	149	0	0	0	17	2,883
Finished Unleaded Motor Gasoline	1	3,956	185	68	0	0	0	0	4,210
Finished Aviation Gasoline	0	33	8	-2	0	0	0	0	39
Naphtha-Type Jet Fuel	0	209	16	-11	0	0	0	3	212
Kerosene-Type Jet Fuel	0	911	28	-55	0	0	0	6	878
Kerosene	0	95	9	-9	0	0	0	(s)	95
Distillate Fuel Oil	1	2,878	266	-490	0	0	0	53	2,602
Residual Fuel Oil	0	841	676	-17	0	0	0	176	1,324
Naphtha < 400 Deg. for Petro. Feed. Use	0	146	35	-7	0	0	0	7	167
Other Oils > 400 Deg. for Petro. Feed. Use	0	279	0	7	0	0	0	28	258
Special Naphthas	0	56	54	-6	0	0	0	10	94
Lubricants	0	163	12	-4	0	0	0	16	156
Waxes	0	16	1	-1	0	0	0	1	15
Petroleum Coke	0	456	0	11	0	0	0	269	198
Asphalt and Road Oil	0	501	4	90	0	0	0	(s)	595
Still Gas	0	600	0	0	0	0	0	0	600
Miscellaneous Products	2	58	21	-2	0	0	0	1	78
Total	**10,398**	**14,263**	**5,304**	**-172**	**490**	**2**	**13,729**	**864**	**15,687**

---

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - June 1984
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E **8,714**	**0**	**3,369**	**-243**	**422**	**1**	**12,001**	**198**	**63**
Natural Gas Liquids and LRGs	**1,600**	**371**	**254**	**-1**	**0**	**0**	**475**	**50**	**1,700**
Pentanes Plus	285	0	41	-10	0	0	195	3	119
Liquefied Petroleum Gases	1,315	371	212	9	0	0	280	47	1,580
Ethane	500	23	88	1	0	0	2	5	604
Propane	518	278	66	(s)	0	0	4	27	831
Normal Butane	200	71	35	4	0	0	157	12	141
Isobutane	97	-1	23	4	0	0	117	3	4
Other Liquids	**47**	**0**	**320**	**-42**	**0**	**0**	**549**	**0**	**-224**
Other Hydrocarbons and Alcohol	47	0	0	(s)	0	0	46	0	0
Unfinished Oils	0	0	248	-18	0	0	399	0	-170
Motor Gasoline Blending Components	0	0	73	-24	0	0	103	0	-54
Aviation Gasoline Blending Components	0	0	0	(s)	0	0	(s)	0	0
Finished Petroleum Products	**6**	**13,205**	**1,521**	**17**	**0**	**0**	**0**	**467**	**14,280**
Finished Motor Gasoline	3	6,418	298	-103	0	0	0	5	6,612
Finished Leaded Motor Gasoline	2	2,649	147	-14	0	0	0	5	2,779
Finished Unleaded Motor Gasoline	1	3,769	151	-88	0	0	0	0	3,833
Finished Aviation Gasoline	0	24	2	(s)	0	0	0	0	25
Naphtha-Type Jet Fuel	0	200	19	-4	0	0	0	1	215
Kerosene-Type Jet Fuel	0	892	49	-20	0	0	0	4	916
Kerosene	(s)	110	8	(s)	0	0	0	(s)	118
Distillate Fuel Oil	1	2,628	262	151	0	0	0	47	2,995
Residual Fuel Oil	0	891	776	13	0	0	0	159	1,521
Naphtha < 400 Deg. for Petro. Feed. Use	0	135	28	-1	0	0	0	7	155
Other Oils > 400 Deg. for Petro. Feed. Use	0	271	0	-1	0	0	0	17	253
Special Naphthas	(s)	56	52	1	0	0	0	3	105
Lubricants	0	159	11	6	0	0	0	17	159
Waxes	0	14	1	1	0	0	0	1	16
Petroleum Coke	0	450	0	5	0	0	0	205	250
Asphalt and Road Oil	0	326	1	-28	0	0	0	(s)	299
Still Gas	0	565	0	0	0	0	0	0	565
Miscellaneous Products	2	64	15	-2	0	0	0	1	77
Total	10,367	13,576	5,463	-270	422	1	13,024	715	15,819

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 6. PAD District I, Supply and Disposition of Crude Oil and Petroleum Products, June 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 1,854	0	26,167	887	3,365	3,123	1	35,395	0	0	15,055
Natural Gas Liquids and LRGs	870	1,238	1,403	-347	0	1,487	0	204	16	4,432	3,359
Liquefied Petroleum Gases	777	1,238	610	-343	0	1,487	0	166	16	3,587	3,304
Pentanes Plus	93	0	794	-4	0	0	0	38	0	845	55
Other Liquids	65	0	3,210	311	0	167	0	4,314	0	-561	20,600
Other Hydrocarbons and Alcohol	65	0	0	-57	0	0	0	8	0	0	92
Unfinished Oils	0	0	1,814	1,010	0	130	0	4,509	0	-1,555	14,961
Motor Gasoline Blending Components	0	0	1,395	-631	0	37	0	-192	0	993	5,536
Aviation Gasoline Blending Components	0	0	0	-11	0	0	0	-11	0	0	11
Finished Petroleum Products	65	40,424	35,493	-4,210	0	65,407	0	0	512	136,667	150,042
Finished Motor Gasoline	65	17,604	6,876	2,411	0	41,172	0	0	58	68,070	63,798
Finished Leaded Motor Gasoline	38	5,254	2,147	902	0	14,089	0	0	58	22,372	29,197
Finished Unleaded Motor Gasoline	27	12,350	4,730	1,509	0	27,083	0	0	0	45,699	34,601
Finished Aviation Gasoline	0	10	234	-73	0	259	0	0	0	430	483
Naphtha-Type Jet Fuel	0	891	447	51	0	79	0	0	0	1,468	878
Kerosene-Type Jet Fuel	0	1,154	753	-799	0	8,491	0	0	0	9,599	9,000
Kerosene	0	128	273	-296	0	226	0	0	4	327	3,468
Distillate Fuel Oil	0	9,385	7,322	-7,412	0	12,417	0	0	2	21,710	39,943
Residual Fuel Oil	0	3,346	18,223	1,181	0	1,675	0	0	0	24,425	21,913
Naphtha and Other Oils for Petro. Feed.	0	322	7	-2	0	-8	0	0	49	270	275
Special Naphthas	0	40	415	-21	0	147	0	0	6	575	743
Lubricants	0	654	237	-34	0	529	0	0	152	1,233	3,011
Waxes	0	81	29	6	0	10	0	0	4	122	91
Petroleum Coke	0	1,215	0	9	0	0	0	0	221	1,003	536
Asphalt and Road Oil	0	3,494	91	710	0	179	0	0	2	4,472	5,556
Still Gas	0	1,802	0	0	0	0	0	0	0	1,802	0
Miscellaneous Products	0	298	586	59	0	231	0	0	14	1,160	347
Total	2,854	41,662	66,273	-3,359	3,365	70,184	1	39,913	527	140,538	189,056

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 7. PAD District II, Supply and Disposition of Crude Oil and Petroleum Products, June 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	**E 31,293**	**0**	**14,073**	**1,463**	**40,517**	**2,312**	**11**	**89,218**	**428**	**0**	**77,934**
Natural Gas Liquids and LRGs	**9,877**	**2,347**	**3,160**	**-1,506**	**0**	**1,379**	**0**	**4,229**	**525**	**10,503**	**36,100**
Liquefied Petroleum Gases	8,497	2,347	3,160	-1,400	0	1,285	0	2,902	446	10,540	32,264
Pentanes Plus	1,380	0	0	-106	0	94	0	1,327	79	-38	3,836
Other Liquids	**349**	**0**	**214**	**319**	**0**	**-804**	**0**	**1,115**	**0**	**-1,037**	**24,793**
Other Hydrocarbons and Alcohol	349	0	0	-8	0	0	0	341	0	0	137
Unfinished Oils	0	0	214	-219	0	-804	0	23	0	-832	17,325
Motor Gasoline Blending Components	0	0	0	542	0	0	0	747	0	-205	7,175
Aviation Gasoline Blending Components	0	0	0	4	0	0	0	4	0	0	156
Finished Petroleum Products	**19**	**95,886**	**904**	**-231**	**0**	**23,619**	**0**	**0**	**544**	**119,652**	**119,539**
Finished Motor Gasoline	0	52,962	82	2,282	0	14,345	0	0	0	69,671	58,308
Finished Leaded Motor Gasoline	0	23,127	45	1,490	0	7,161	0	0	0	31,823	29,154
Finished Unleaded Motor Gasoline	0	29,835	37	792	0	7,184	0	0	0	37,848	29,154
Finished Aviation Gasoline	0	97	0	-11	0	166	0	0	0	252	532
Naphtha-Type Jet Fuel	0	830	0	-32	0	51	0	0	0	849	1,547
Kerosene-Type Jet Fuel	0	4,008	0	179	0	647	0	0	0	4,834	7,847
Kerosene	0	295	0	357	0	3	0	0	0	655	1,613
Distillate Fuel Oil	0	22,169	438	-4,677	0	7,728	0	0	0	25,658	31,744
Residual Fuel Oil	0	1,535	133	364	0	-68	0	0	0	1,964	3,579
Naphtha and Other Oils for Petro. Feed.	0	873	4	-23	0	36	0	0	50	840	192
Special Naphthas	0	470	199	-4	0	120	0	0	3	783	507
Lubricants	0	665	14	-215	0	417	0	0	31	850	2,088
Waxes	0	30	5	-9	0	0	0	0	(s)	26	57
Petroleum Coke	0	3,308	0	84	0	0	0	0	457	2,935	1,086
Asphalt and Road Oil	0	4,558	0	1,370	0	393	0	0	1	6,320	10,205
Still Gas	0	3,820	0	0	0	0	0	0	0	3,820	0
Miscellaneous Products	19	266	29	104	0	-219	0	0	2	196	234
Total	41,538	98,233	18,350	45	40,517	26,506	11	94,562	1,497	129,118	258,366

---

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 8. PAD District III, Supply and Disposition of Crude Oil and Petroleum Products, June 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 124,899	0	52,794	-7,152	-19,510	10,256	25	161,239	0	23	578,449
Natural Gas Liquids and LRGs	33,854	7,147	401	-4,120	0	-1,286	0	7,565	931	27,500	74,253
Liquefied Petroleum Gases	27,742	7,147	366	-3,742	0	-1,425	0	3,081	931	26,076	67,926
Pentanes Plus	6,112	0	35	-378	0	139	0	4,484	0	1,424	6,327
Other Liquids	584	0	4,851	10,137	0	-207	0	21,684	0	-6,319	67,393
Other Hydrocarbons and Alcohol	584	0	0	2	0	0	0	586	0	0	99
Unfinished Oils	0	0	4,833	9,636	0	-170	0	18,836	0	-4,537	49,462
Motor Gasoline Blending Components	0	0	18	451	0	-37	0	2,214	0	-1,782	17,683
Aviation Gasoline Blending Components	0	0	0	48	0	0	0	48	0	0	149
Finished Petroleum Products	93	190,472	3,780	-3,992	0	-91,573	0	0	7,203	91,577	124,163
Finished Motor Gasoline	8	88,566	441	1,558	0	-57,134	0	0	76	33,364	53,287
Finished Leaded Motor Gasoline	8	34,310	214	1,372	0	-21,978	0	0	76	13,851	23,946
Finished Unleaded Motor Gasoline	0	54,256	227	186	0	-35,156	0	0	0	19,513	29,341
Finished Aviation Gasoline	0	459	0	95	0	-447	0	0	0	107	715
Naphtha-Type Jet Fuel	0	2,725	29	-118	0	-236	0	0	81	2,319	2,231
Kerosene-Type Jet Fuel	0	13,593	0	-1,137	0	-9,784	0	0	155	2,517	12,700
Kerosene	0	2,265	0	-336	0	-229	0	0	1	1,699	2,524
Distillate Fuel Oil	40	38,787	1	-2,445	0	-20,364	0	0	472	15,547	26,077
Residual Fuel Oil	0	9,952	1,480	-1,158	0	-1,607	0	0	1,106	7,561	11,214
Naphtha and Other Oils for Petro. Feed.	0	11,199	1,033	-406	0	-28	0	0	854	10,944	3,225
Special Naphthas	0	1,063	720	-156	0	-267	0	0	39	1,320	1,549
Lubricants	0	3,213	48	96	0	-916	0	0	216	2,225	4,625
Waxes	0	279	5	-28	0	-10	0	0	29	217	391
Petroleum Coke	0	5,502	0	-52	0	0	0	0	4,170	1,280	1,229
Asphalt and Road Oil	0	3,839	22	126	0	-572	0	0	(s)	3,415	3,278
Still Gas	0	8,020	0	0	0	0	0	0	0	8,020	0
Miscellaneous Products	45	1,010	1	-31	0	21	0	0	4	1,043	1,118
Total	159,430	197,619	61,826	-5,127	-19,510	-82,810	25	190,488	8,134	112,781	844,258

[1] Unaccounted for crude oil is a balancing item.
(s) = Less than 500 barrels.
E = Estimated.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 9. PAD District IV, Supply and Disposition of Crude Oil and Petroleum Products, June 1984
(Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	**E 17,001**	**0**	**944**	**525**	**-4,792**	**0**	**1**	**13,671**	**0**	**6**	**13,459**
Natural Gas Liquids and LRGs	**2,599**	**106**	**321**	**37**	**0**	**-1,580**	**0**	**435**	**0**	**1,048**	**1,183**
Liquefied Petroleum Gases	1,784	106	208	34	0	-1,347	0	322	0	463	931
Pentanes Plus	815	0	112	3	0	-233	0	113	0	584	252
Other Liquids	**0**	**0**	**0**	**186**	**0**	**0**	**0**	**-12**	**0**	**198**	**5,068**
Other Hydrocarbons and Alcohol	0	0	0	0	0	0	0	0	0	0	0
Unfinished Oils	0	0	0	9	0	0	0	-193	0	202	2,719
Motor Gasoline Blending Components	0	0	0	177	0	0	0	181	0	-4	2,349
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	**6**	**14,301**	**147**	**1,011**	**0**	**-306**	**0**	**0**	**3**	**15,156**	**13,568**
Finished Motor Gasoline	2	7,292	47	729	0	-160	0	0	0	7,910	5,592
Finished Leaded Motor Gasoline	2	4,296	45	402	0	-264	0	0	0	4,481	3,595
Finished Unleaded Motor Gasoline	0	2,996	2	327	0	104	0	0	0	3,429	1,997
Finished Aviation Gasoline	0	20	0	8	0	22	0	0	0	50	56
Naphtha-Type Jet Fuel	0	443	0	-45	0	-130	0	0	0	268	333
Kerosene-Type Jet Fuel	0	758	0	45	0	353	0	0	0	1,156	788
Kerosene	0	0	0	2	0	0	0	0	0	2	37
Distillate Fuel Oil	0	3,877	97	-50	0	-391	0	0	0	3,533	3,463
Residual Fuel Oil	0	230	2	41	0	0	0	0	0	273	510
Naphtha and Other Oils for Petro. Feed.	0	0	0	0	0	0	0	0	1	-1	3
Special Naphthas	0	3	(s)	-1	0	0	0	0	0	2	9
Lubricants	0	32	(s)	2	0	0	0	0	1	33	72
Waxes	0	11	0	0	0	0	0	0	0	11	0
Petroleum Coke	0	258	0	-6	0	0	0	0	0	252	174
Asphalt and Road Oil	0	859	0	281	0	0	0	0	1	1,139	2,521
Still Gas	0	487	0	0	0	0	0	0	0	487	0
Miscellaneous Products	4	31	(s)	5	0	0	0	0	(s)	40	10
Total	**19,606**	**14,407**	**1,411**	**1,759**	**-4,792**	**-1,886**	**1**	**14,094**	**3**	**16,408**	**33,278**

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 10. PAD District V, Supply and Disposition of Crude Oil and Petroleum Products, June 1984 (Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 87,243	0	8,334	1,441	-4,870	-15,691	29	68,378	6,237	1,813	81,530
Natural Gas Liquids and LRGs	991	1,239	394	-201	0	0	0	876	186	1,362	1,834
Liquefied Petroleum Gases	557	1,239	394	-210	0	0	0	637	186	1,158	1,783
Pentanes Plus	434	0	0	9	0	0	0	239	0	204	51
Other Liquids	263	0	786	1,251	0	844	0	3,569	0	-425	34,878
Other Hydrocarbons and Alcohol	263	0	0	1	0	0	0	264	0	0	2
Unfinished Oils	0	0	15	1,004	0	844	0	3,169	0	-1,306	26,314
Motor Gasoline Blending Components	0	0	771	228	0	0	0	118	0	881	8,551
Aviation Gasoline Blending Components	0	0	0	18	0	0	0	18	0	0	11
Finished Petroleum Products	0	74,730	1,738	-969	0	2,853	0	0	9,340	69,012	58,975
Finished Motor Gasoline	0	32,099	718	-461	0	1,777	0	0	381	33,752	23,188
Finished Leaded Motor Gasoline	0	12,854	177	309	0	992	0	0	381	13,952	10,784
Finished Unleaded Motor Gasoline	0	19,245	541	-770	0	785	0	0	0	19,801	12,404
Finished Aviation Gasoline	0	413	0	-82	0	0	0	0	0	331	572
Naphtha-Type Jet Fuel	0	1,383	8	-184	0	236	0	0	0	1,443	1,917
Kerosene-Type Jet Fuel	0	7,827	90	51	0	293	0	0	36	8,225	5,665
Kerosene	0	175	0	-2	0	0	0	0	(s)	173	245
Distillate Fuel Oil	0	12,125	126	-126	0	610	0	0	1,114	11,621	11,641
Residual Fuel Oil	0	10,161	445	-948	0	0	0	0	4,169	5,489	9,595
Naphtha and Other Oils for Petro. Feed.	0	340	0	440	0	0	0	0	98	682	209
Special Naphthas	0	118	271	2	0	0	0	0	243	148	215
Lubricants	0	331	75	24	0	-30	0	0	76	324	1,262
Waxes	0	70	3	-6	0	0	0	0	4	63	54
Petroleum Coke	0	3,388	0	308	0	0	0	0	3,214	482	1,533
Asphalt and Road Oil	0	2,274	0	224	0	0	0	0	(s)	2,498	2,341
Still Gas	0	3,881	0	0	0	0	0	0	0	3,881	0
Miscellaneous Products	0	145	1	-209	0	-33	0	0	3	-99	538
Total	88,497	75,969	11,251	1,522	-4,870	-11,994	29	72,823	15,763	71,761	177,217

[1] Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

and State, for the Most Currently Available Month,[1] April 1984 (Thousand Barrels)

and State, for the Most Currently Available Month,[1] April 1984 (Thousand Barrels) —Continued

PAD District and State	Production	
	Total	Daily Average
PAD District I		
Florida	1,215	41
New York	E 69	E 2
Pennsylvania	E 351	E 12
Virginia	E 3	E 0
West Virginia	320	11
Adjustment [2]	-11	(s)
Total PAD District I	E 1,947	E 65
PAD District II		
Illinois	2,326	78
Indiana	518	17
Kansas	6,365	212
Kentucky	623	21
Michigan	2,699	90
Missouri	E 15	E 1
Nebraska	500	17
North Dakota	4,261	142
Ohio	E 1,197	E 40
Oklahoma	14,307	477
South Dakota	102	3
Tennessee	79	3
Adjustment [2]	-1,819	-61
Total PAD District II	E 31,173	E 1,039
PAD District III		
Alabama	1,533	51
Arkansas	E 1,509	E 50
Louisiana		
Gulf Coast	38,298	1,277
Rest of State	2,671	89
Total Louisiana	40,969	1,366
Mississippi	2,653	88
New Mexico		
Northwestern	543	18
Southeastern	5,845	195
Total New Mexico	6,388	213
Texas		
TRRC District 01	2,148	72
TRRC District 02	3,221	107
TRRC District 03	10,333	344
TRRC District 04	2,444	81
TRRC District 05	670	22
TRRC District 06, excluding East Texas	3,506	117
TRRC District 07B	2,969	99
TRRC District 07C	2,954	98
TRRC District 08	19,017	634
TRRC District 08A	17,928	598
TRRC District 09	3,319	111
TRRC District 10	1,920	64
East Texas	4,084	136
Total Texas	74,513	2,484
Adjustment [2]	-2,285	-76
Total PAD District III	E 125,280	E 4,176
PAD District IV		
Colorado	E 2,358	E 79
Montana	E 2,304	E 77
Utah	E 2,640	E 88
Wyoming	E 9,798	E 327
Adjustment [2]	-72	-2
Total PAD District IV	E 17,028	E 568
PAD District V		
Alaska		
South Alaska	1,939	65
North Slope	51,150	1,705
Adjustment for Alaska[2]	-1,348	-45
Total Alaska	51,741	1,725
Arizona	19	1
California		
Central Coastal	6,164	205
East Central	20,860	695
North	16	1
South	6,528	218
Total California	33,568	1,119
Nevada	103	3
Adjustment for Arizona, California, and Nevada[2]	-216	-7
Total PAD District V	85,215	2,841
United States Total	E 260,643	E 8,688

See footnotes at end of table.

---

[1] Includes the following offshore production (thousand barrels):
Alaska: State - 1,701;
California: Federal - 2,493, State - 3,174;
Louisiana: Federal - 25,494, State - 2,222;
Texas: Federal - 1,757, State- 159;
U.S. Total - 37,000

[2] These adjustments are used to reconcile the national and PADD level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PADD level figures published in a previous issue. Final data at the State, PAD District and national levels will be published without adjustments in the Petroleum Supply Annual.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

– Data not available.

E = Estimated.

Table 12. Natural Gas Processing Plant Production of Petroleum Products by PAD District,[1] June 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Natural Gas Liquids	356	514	870	3	1,645	476	7,753	9,877	19,323	2,991	7,012	588	3,940	33,854	2,599	991	48,191
Pentanes Plus	30	63	93	1	225	124	1,030	1,380	3,635	255	1,286	177	759	6,112	815	434	8,834
Liquefied Petroleum Gases	326	451	777	2	1,420	352	6,723	8,497	15,688	2,736	5,726	411	3,181	27,742	1,784	557	39,357
Ethane	96	149	245	0	581	4	2,977	3,562	6,172	1,093	2,516	63	1,016	10,860	217	3	14,887
Propane	138	194	332	1	503	203	2,498	3,205	5,964	1,175	1,976	173	1,300	10,588	1,000	332	15,457
Normal Butane	72	79	151	1	184	119	812	1,116	2,554	216	659	123	581	4,133	450	158	6,008
Isobutane	20	29	49	0	152	26	436	614	998	252	575	52	284	2,161	117	64	3,005
Finished Petroleum Products	65	0	65	0	1	0	18	19	27	49	2	8	7	93	6	0	183
Finished Motor Gasoline	65	0	65	0	0	0	0	0	6	0	0	0	2	8	2	0	75
Finished Leaded Motor Gasoline	38	0	38	0	0	0	0	0	6	0	0	0	2	8	2	0	48
Finished Unleaded Motor Gasoline	27	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	27
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	0	0	0	0	0	0	0	0	40	0	0	0	40	0	0	40
Special Naphthas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	1	0	18	19	21	9	2	8	5	45	4	0	68
Total Production	421	514	935	3	1,646	476	7,771	9,896	19,350	3,040	7,014	596	3,947	33,947	2,605	991	48,374

[1] Production represents quantity of natural gas processing plant output less input to fractionating facilities.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 13. Refinery Input of Crude Oil and Petroleum Products by PAD District, June 1984
(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil (including lease condensate)	33,010	2,385	35,395	1,745	59,495	8,682	19,296	89,218	16,025	78,916	58,399	5,563	2,336	161,239	13,671	68,378	367,901
Pentanes Plus	38	0	38	0	612	50	665	1,327	1,039	2,920	349	81	95	4,484	113	239	6,201
Liquefied Petroleum Gases	132	34	166	111	1,963	264	564	2,902	323	1,050	1,536	128	44	3,081	322	637	7,108
Ethane	0	0	0	0	2	0	0	2	0	0	51	0	0	51	0	0	53
Propane	0	0	0	0	67	0	0	67	0	1	38	0	0	39	0	1	107
Normal Butane	92	34	126	35	906	200	143	1,284	70	501	791	25	13	1,400	242	398	3,450
Isobutane	40	0	40	76	988	64	421	1,549	253	548	656	103	31	1,591	80	238	3,498
Other Liquids																	
Other Hydrocarbons and Alcohol	8	0	8	0	328	0	13	341	0	208	376	0	2	586	0	264	1,199
Unfinished Oil (net)	4,436	73	4,509	-2	157	-274	142	23	163	14,390	4,176	-10	117	18,836	-193	3,169	26,344
Motor Gasoline Blending Components (net)	-198	6	-192	4	710	10	23	747	154	255	1,743	53	9	2,214	181	118	3,068
Aviation Gasoline Blending Components (net)	-11	0	-11	0	51	0	-47	4	0	0	48	0	0	48	0	18	59
Total Input to Refineries	37,415	2,498	39,913	1,858	63,316	8,732	20,656	94,562	17,704	97,739	66,627	5,815	2,603	190,488	14,094	72,823	411,880
Crude Oil Distillation																	
Gross Input (daily average)	1,071	80	1,150	58	1,999	295	653	3,005	544	2,703	1,969	187	77	5,481	458	2,298	12,393
Operable Capacity (daily average)	1,404	174	1,578	66	2,329	304	787	3,486	604	3,802	2,539	294	109	7,348	558	3,100	16,070
Operating Ratio (percent)[1]	76.3	45.6	72.9	88.1	85.8	97.0	83.0	86.2	90.2	71.1	77.6	63.8	70.8	74.6	82.2	74.1	77.1
Crude Oil Qualities																	
Sulfur Content, Weighted Average (percent)	.94	.34	.89	.56	.90	1.78	.61	.92	.62	.97	.98	1.46	.74	.95	.91	1.01	.95
API Gravity, Weighted Average	32.11	40.17	32.70	37.16	35.61	30.96	37.81	35.66	37.40	34.35	33.00	32.25	39.32	34.17	35.09	25.60	32.83
Operable Capacity (daily average)	1,404	174	1,578	66	2,329	304	787	3,486	604	3,802	2,539	294	109	7,348	558	3,100	16,070
Operating	1,257	110	1,367	66	2,154	301	726	3,247	584	3,622	2,362	238	107	6,913	530	2,894	14,950
Idle	147	64	211	0	175	3	61	239	20	181	176	56	2	435	28	207	1,120

[1] Represents gross input divided by operable capacity.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 14. Refinery Production of Petroleum Products by PAD District, June 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	1,224	14	1,238	37	1,817	229	264	2,347	342	2,913	3,723	62	107	7,147	106	1,239	12,077
For Petrochemical Feedstock Use	444	0	444	0	206	17	42	265	31	1,096	1,929	0	0	3,056	12	204	3,981
For Other Uses	780	14	794	37	1,611	212	222	2,082	311	1,817	1,794	62	107	4,091	94	1,035	8,096
Ethane	32	0	32	0	0	0	0	0	0	385	15	0	0	400	0	0	432
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	188	1	0	0	189	0	0	189
For Other Uses	32	0	32	0	0	0	0	0	0	197	14	0	0	211	0	0	243
Propane	963	14	977	37	1,812	209	425	2,483	307	2,152	1,464	56	58	4,037	147	960	8,604
For Petrochemical Feedstock Use	384	0	384	0	206	0	42	248	31	791	242	0	0	1,064	0	193	1,889
For Other Uses	579	14	593	37	1,606	209	383	2,235	276	1,361	1,222	56	58	2,973	147	767	6,715
Normal Butane	229	0	229	0	5	20	-161	-136	35	404	2,244	6	49	2,738	-52	280	3,059
For Petrochemical Feedstock Use	60	0	60	0	0	17	0	17	0	145	1,686	0	0	1,831	1	12	1,921
For Other Uses	169	0	169	0	5	3	-161	-153	35	259	558	6	49	907	-53	268	1,138
Isobutane for Petro. Feed. Use	0	0	0	0	0	0	0	0	0	-28	0	0	0	-28	11	-1	-18
Finished Motor Gasoline	16,781	823	17,604	1,048	36,188	4,421	11,305	52,962	8,929	45,111	31,709	1,747	1,070	88,566	7,292	32,099	198,523
Finished Leaded Motor Gasoline	4,892	362	5,254	474	14,216	2,232	6,205	23,127	4,520	16,152	12,301	756	581	34,310	4,296	12,854	79,841
Finished Unleaded Motor Gasoline	11,889	461	12,350	574	21,972	2,189	5,100	29,835	4,409	28,959	19,408	991	489	54,256	2,996	19,245	118,682
Finished Aviation Gasoline	10	0	10	0	80	0	17	97	16	283	160	0	0	459	20	413	999
Naphtha-Type Jet Fuel	850	41	891	77	474	109	170	830	934	739	514	119	419	2,725	443	1,383	6,272
Kerosene-Type Jet Fuel	1,154	0	1,154	7	3,151	343	507	4,008	894	5,810	6,773	7	109	13,593	758	7,827	27,340
Kerosene	59	69	128	45	189	12	49	295	29	1,220	930	38	48	2,265	0	175	2,863
Distillate Fuel Oil	8,674	711	9,385	450	13,193	2,405	6,121	22,169	4,272	19,046	13,058	1,718	693	38,787	3,877	12,125	86,343
Residual Fuel Oil	3,262	84	3,346	59	1,045	164	267	1,535	638	6,450	2,621	233	10	9,952	230	10,161	25,224
Naphtha < 400 Deg. For Petro. Feed. Use	317	0	317	0	687	0	70	757	122	2,865	154	17	0	3,158	0	146	4,378
Other Oils > 400 Deg. For Petro. Feed. Use	5	0	5	0	116	0	0	116	127	5,450	2,464	0	0	8,041	0	194	8,356
Special Naphthas	11	29	40	0	280	0	190	470	91	790	69	113	0	1,063	3	118	1,694
Lubricants	291	363	654	0	552	0	113	665	24	1,938	889	362	0	3,213	32	331	4,895
Waxes	0	81	81	0	27	0	3	30	6	108	102	63	0	279	11	70	471
Petroleum Coke	1,196	19	1,215	26	2,171	529	582	3,308	292	2,705	2,425	69	11	5,502	258	3,388	13,671
Marketable	439	0	439	0	1,104	407	390	1,901	58	1,103	1,641	44	0	2,846	107	2,602	7,895
Catalyst	757	19	776	26	1,067	122	192	1,407	234	1,602	784	25	11	2,656	151	786	5,776
Asphalt and Road Oil	3,402	92	3,494	103	3,204	562	689	4,558	643	600	1,372	1,110	114	3,839	859	2,274	15,024
Still Gas	1,708	94	1,802	45	2,639	341	795	3,820	459	4,700	2,641	156	64	8,020	487	3,881	18,010
For Petrochemical Feedstock Use	163	0	163	0	2	0	0	2	5	553	160	0	0	718	1	147	1,031
For Other Uses	1,545	94	1,639	45	2,637	341	795	3,818	454	4,147	2,481	156	64	7,302	486	3,734	16,979
Miscellaneous Products	248	50	298	3	174	32	57	266	9	657	295	49	0	1,010	31	145	1,750
Fuel Use	117	17	134	0	0	0	0	0	0	-38	188	0	0	150	12	17	313
Non-Fuel Use	131	33	164	3	174	32	57	266	9	695	107	49	0	860	19	128	1,437
Total Production	39,192	2,470	41,662	1,900	65,987	9,147	21,199	98,233	17,827	101,385	69,899	5,863	2,645	197,619	14,407	75,969	427,890
Processing Gain(-) or Loss(+)[1]	-1,777	28	-1,749	-42	-2,671	-415	-543	-3,671	-123	-3,646	-3,272	-48	-42	-7,131	-313	-3,146	-16,010

[1] Represents the arithmetic difference between input and output.

Note: See Explanatory Note 2.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 15. Percent Refinery Yield of Petroleum Products by PAD District,[1] June 1984

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Finished Motor Gasoline[2]	44.9	31.9	44.1	53.5	54.6	48.7	51.7	53.4	45.8	43.6	44.3	26.7	37.5	43.4	49.5	43.1	45.9
Finished Aviation Gasoline[3]	.1	.0	.1	.0	.0	.0	.3	.1	.1	.3	.2	.0	.0	.2	.1	.6	.2
Liquefied Refinery Gases	3.3	.6	3.1	2.1	3.0	2.7	1.4	2.6	2.1	3.1	5.9	1.1	4.4	4.0	.8	1.7	3.1
Naphtha-Type Jet Fuel	2.3	1.7	2.2	4.4	.8	1.3	.9	.9	5.8	.8	.8	2.1	17.1	1.5	3.3	1.9	1.6
Kerosene-Type Jet Fuel	3.1	0	2.9	.4	5.3	4.1	2.6	4.5	5.5	6.2	10.8	.1	4.4	7.5	5.6	10.9	6.9
Kerosene	.2	2.8	.3	2.6	.3	.1	.3	.3	.2	1.3	1.5	.7	2.0	1.3	0	.2	.7
Distillate Fuel Oil	23.2	28.9	23.5	25.8	22.1	28.6	31.5	24.8	26.4	20.4	20.9	30.9	28.3	21.5	28.8	16.9	21.9
Residual Fuel Oil	8.7	3.4	8.4	3.4	1.8	2.0	1.4	1.7	3.9	6.9	4.2	4.2	.4	5.5	1.7	14.2	6.4
Naphtha < 400 Deg. F. Petro. Feed. Use	.8	0	.8	0	1.2	0	.4	.8	.8	3.1	.2	.3	0	1.8	0	.2	1.1
Other Oils > 400 Deg. F. Petro. Feed. Use	.0	0	.0	0	.2	0	0	.1	.8	5.8	3.9	0	0	4.5	.0	.3	2.1
Special Naphthas	.0	1.2	.1	0	.5	0	1.0	.5	.6	.8	.1	2.0	0	.6	.0	.2	.4
Lubricants	.8	14.8	1.6	0	.9	0	.6	.7	.1	2.1	1.4	6.5	0	1.8	.2	.5	1.2
Waxes	.0	3.3	.2	0	.0	0	.0	.0	.0	.1	.2	1.1	0	.2	.1	.1	.1
Petroleum Coke	3.2	.8	3.0	1.5	3.6	6.3	3.0	3.7	1.8	2.9	3.9	1.2	.4	3.1	1.9	4.7	3.5
Asphalt and Road Oil	9.1	3.7	8.8	5.9	5.4	6.7	3.5	5.1	4.0	.6	2.2	20.0	4.6	2.1	6.4	3.2	3.8
Still Gas	4.6	3.8	4.5	2.6	4.4	4.1	4.1	4.3	2.8	5.0	4.2	2.8	2.6	4.5	3.6	5.4	4.6
Miscellaneous Products	.7	2.0	.7	.2	.3	.4	.3	.3	.1	.7	.5	.9	0	.6	.2	.2	.4
Processing Gain(-) or Loss(+)[4]	-4.7	1.1	-4.4	-2.4	-4.5	-4.9	-2.8	-4.1	-.8	-3.9	-5.2	-.9	-1.7	-4.0	-2.3	-4.4	-4.1

---

[1] Based on crude oil input and net reruns of unfinished oils.

[2] Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

[3] Based on finished aviation gasoline output plus net output of aviation gasoline blending components.

[4] Represents the difference between Input and Production.

Note: Total may not equal sum of components due to independent rounding.

Note: See Explanatory 2.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 16. Imports of Crude Oil and Petroleum Products by PAD District, June 1984 (Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) [1] [2]	26,167	14,073	52,794	944	8,334	102,311
Natural Gas Liquids	**1,403**	**3,160**	**401**	**321**	**394**	**5,679**
Pentanes Plus	794	0	35	112	0	941
Liquefied Petroleum Gases	610	3,160	366	208	394	4,738
Ethane	0	1,761	0	0	0	1,761
Propane	347	785	155	87	36	1,410
Normal Butane	158	368	134	73	215	948
Isobutane	105	246	77	48	143	619
Other Liquids [1]	**3,210**	**214**	**4,851**	**0**	**786**	**9,060**
Unfinished Oils [1]	1,814	214	4,833	0	15	6,875
Motor Gasoline Blending Components	1,395	0	18	0	771	2,185
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	**35,493**	**904**	**3,780**	**147**	**1,738**	**42,061**
Finished Motor Gasoline	6,876	82	441	47	718	8,165
Finished Leaded Motor Gasoline	2,147	45	214	45	177	2,629
Finished Unleaded Motor Gasoline	4,730	37	227	2	541	5,536
Finished Aviation Gasoline	234	0	0	0	0	234
Naphtha-Type Jet Fuel	447	0	29	0	8	485
Kerosene-Type Jet Fuel	753	0	0	0	90	843
Bonded Aircraft Fuel	0	0	0	0	0	0
Other	753	0	0	0	90	843
Kerosene	273	0	0	0	0	273
Distillate Fuel Oil	7,322	438	1	97	126	7,985
Bonded Ships Bunkers	0	0	0	0	0	0
Other	7,322	438	1	97	126	7,985
Residual Fuel Oil	18,223	133	1,480	2	445	20,283
Bonded Ships Bunkers	0	0	0	0	0	0
Other	18,223	133	1,480	2	445	20,283
Naphtha < 400 Deg. for Petro. Feed. Use	7	4	1,033	0	0	1,044
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	415	199	720	(s)	271	1,606
Lubricants	237	14	48	(s)	75	374
Waxes	29	5	5	0	3	41
Asphalt and Road Oil	91	0	22	0	0	113
Miscellaneous Products	586	29	1	(s)	1	616
Total Imports	**66,273**	**18,350**	**61,826**	**1,411**	**11,251**	**159,111**

---

[1] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[2] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 17. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January - June 1984
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) [1] [2]	**152,633**	**95,550**	**320,800**	**5,939**	**38,235**	**613,157**
Natural Gas Liquids	**8,309**	**27,870**	**3,544**	**3,118**	**3,319**	**46,160**
Pentanes plus	5,636	0	724	666	510	7,537
Liquefied Petroleum Gases	2,673	27,870	2,819	2,453	2,809	38,623
Ethane	1	16,037	0	0	0	16,038
Propane	1,601	7,448	1,276	1.253	467	12,045
Normal Butane	643	2,631	981	720	1,405	6,380
Isobutane	429	1,754	562	480	937	4,161
Other Liquids [1]	20,772	2,152	27,652	0	7,674	58,249
Unfinished Oils [1]	13,223	2,077	26,220	0	3,533	45,052
Motor Gasoline Blending Components	**7,548**	**75**	**1,432**	**0**	**4,141**	**13,197**
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	231,622	5,360	29,519	1,083	9,161	276,746
Finished Motor Gasoline	45,728	667	3,792	340	3,702	54,228
Finished Leaded Motor Gasoline	**22,032**	**395**	**2,800**	**321**	**1,224**	**26,772**
Finished Unleaded Motor Gasoline	23,696	272	992	18	2,477	27,455
Finished Aviation Gasoline	270	0	0	2	7	279
Naphtha-Type Jet Fuel	1,862	0	1,665	0	8	3,536
Kerosene-Type Jet Fuel	8,475	0	0	0	364	8,839
Bonded Aircraft Fuel	0	0	0	0	0	0
Other	8,475	0	0	0	364	8,839
Kerosene	1,451	0	6	0	(s)	1,458
Distillate Fuel Oil	43,792	1,383	956	647	853	47,631
Bonded Ships Bunkers	0	0	0	0	0	0
Other	43,792	1,383	956	647	853	47,631
Residual Fuel Oil	124,913	1,517	11,919	89	2,737	141,175
Bonded Ships Bunkers	0	0	0	0	0	0
Other	124,913	1,517	11,919	89	2,737	141.175
Naphtha < 400 Deg. for Petro. Feed. Use	696	91	4,293	0	0	5.079
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	1,970	1,284	5,121	3	1,023	9.401
Lubricants	1,262	70	168	1	421	1.922
Waxes	80	30	134	0	15	260
Asphalt and Road Oil	196	16	35	0	3	249
Miscellaneous Products	927	303	1,432	2	26	2.689
Total Imports	413,336	130,932	381,515	10.140	58,389	994.312

[1] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[2] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) — Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, June 1984 (Thousand Barrels)

Source	Crude Oil 1	LPG	Unfin-ished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
								All PAD Districts						
Arab OPEC														
Algeria	5,269	180	0	0	0	0	0	707	1,186	218	964	3,255	8,523	284
Iraq	101	0	0	0	0	0	0	0	0	0	0	0	101	3
Kuwait	1,068	0	0	0	0	0	0	0	792	0	0	792	1,860	62
Saudi Arabia	11,962	165	217	0	0	0	0	0	0	0	0	382	12,344	411
United Arab Emirates	550	0	0	0	0	0	0	0	0	0	817	817	1,366	46
Subtotal Arab OPEC	18,949	345	217	0	0	0	0	707	1,978	218	1,780	5,245	24,195	806
Other OPEC														
Ecuador	1,073	0	0	0	0	0	0	0	411	0	0	411	1,483	49
Gabon	719	0	0	0	0	0	0	0	0	0	0	0	719	24
Indonesia	10,965	0	0	0	67	37	0	13	1,134	235	(s)	1,485	12,451	415
Nigeria	6,991	0	288	0	0	0	0	0	0	0	0	288	7,279	243
Venezuela	7,350	0	977	0	1,567	225	0	2,825	4,013	0	271	9,879	17,229	574
Subtotal Other OPEC	27,098	0	1,265	0	1,634	261	0	2,838	5,558	235	271	12,063	39,160	1,305
Other														
Angola	3,478	0	0	0	0	0	0	0	0	0	0	0	3,478	116
Australia	600	0	0	0	169	9	0	29	19	0	48	274	874	29
Bahamas	0	0	784	0	0	0	0	225	491	0	0	1,501	1,501	50
Brazil	0	0	0	0	851	0	0	0	1,895	37	(s)	2,784	2,784	93
Canada	8,214	3,994	233	0	433	8	1	972	623	252	243	6,760	14,974	499
Congo	1,060	0	0	0	0	0	0	0	167	0	0	167	1,227	41
Egypt	784	0	0	0	0	0	0	0	0	0	0	0	784	26
France	0	0	0	0	161	0	0	0	0	0	(s)	162	162	5
Malaysia	0	0	0	0	97	0	0	13	45	0	0	155	155	5
Mexico	19,532	369	907	873	(s)	29	0	147	6	(s)	88	2,418	21,950	732
Netherlands	1	0	0	0	506	0	0	746	0	36	46	1,333	1,334	44
Netherlands Antilles	0	0	1,085	219	562	188	0	367	4,613	0	0	7,034	7,034	234
Norway	4,516	0	0	0	0	0	0	0	0	0	0	0	4,516	151
Oman	497	0	0	0	0	0	0	0	0	0	0	0	497	17
People's Republic of China	630	0	0	606	267	0	0	0	0	0	3	876	1,506	50
Peru	222	0	0	0	0	0	0	0	456	0	0	456	678	23
Puerto Rico	0	0	215	0	722	0	0	0	0	379	278	1,594	1,594	53
Romania	0	0	0	303	395	0	0	0	389	0	0	1,087	1,087	36
Spain	0	0	0	0	240	0	0	0	0	0	0	240	240	8
Trinidad and Tobago	3,106	0	0	0	0	0	0	0	0	0	0	0	3,106	104
United Kingdom	9,154	30	0	0	368	0	0	0	0	0	(s)	398	9,552	318
Virgin Islands	0	0	1,297	0	1,038	787	273	1,654	2,890	104	0	8,042	8,042	268
Zaire	1,169	0	0	0	0	0	0	0	0	0	0	0	1,169	39
Other Western Hemisphere	149	0	0	0	0	0	0	0	622	54	(s)	676	825	28
Other Eastern Hemisphere	3,155	(s)	872	183	722	44	0	288	529	292	604	3,534	6,689	223
Subtotal Other	56,264	4,393	5,393	2,185	6,530	1,066	273	4,440	12,747	1,153	1,312	39,492	95,756	3,192
Total Imports	102,311	4,738	6,875	2,185	8,165	1,327	273	7,985	20,283	1,606	3,364	56,800	159,111	5,304
								PAD District I						
Arab OPEC														
Algeria	1,313	180	0	0	0	0	0	707	1,186	218	0	2,291	3,604	120
Saudi Arabia	2,694	165	217	0	0	0	0	0	0	0	0	382	3,076	103

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, June 1984
(Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfin-ished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
							PAD District I							
Other OPEC														
Ecuador	0	0	0	0	0	0	0	0	411	0	0	411	411	14
Gabon	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Indonesia	931	0	0	0	0	0	0	0	523	0	0	523	1,454	48
Nigeria	2,886	0	0	0	0	0	0	0	0	0	0	0	2,886	96
Venezuela	2,141	0	0	0	1,340	225	0	2,825	3,769	0	271	8,430	10,571	352
Subtotal Other OPEC	5,958	0	0	0	1,340	225	0	2,825	4,702	0	271	9,363	15,321	511
Other														
Angola	2,784	0	0	0	0	0	0	0	0	0	0	0	2,784	93
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bahamas	0	0	0	0	0	0	0	225	491	0	0	716	716	24
Brazil	0	0	0	0	637	0	0	0	1,895	0	(s)	2,532	2,532	84
Canada	884	236	5	0	296	0	1	403	481	16	77	1,515	2,399	80
Congo	567	0	0	0	0	0	0	0	167	0	0	167	735	24
Egypt	784	0	0	0	0	0	0	0	0	0	0	0	784	26
France	0	0	0	0	161	0	0	0	0	0	(s)	161	161	5
Mexico	2,833	0	0	873	(s)	0	0	145	0	0	0	1,018	3,851	128
Netherlands	1	0	0	0	506	0	0	746	0	36	(s)	1,287	1,288	43
Netherlands Antilles	0	0	603	219	562	188	0	367	4,613	0	0	6,552	6,552	218
Norway	2,533	0	0	0	0	0	0	0	0	0	0	0	2,533	84
Oman	497	0	0	0	0	0	0	0	0	0	0	0	497	17
People's Republic of China	630	0	0	0	0	0	0	0	0	0	0	0	630	21
Peru	0	0	0	0	0	0	0	0	456	0	0	456	456	15
Puerto Rico	0	0	215	0	722	0	0	0	0	146	228	1,311	1,311	44
Romania	0	0	0	303	395	0	0	0	389	0	0	1,087	1,087	36
Spain	0	0	0	0	240	0	0	0	0	0	0	240	240	8
Trinidad and Tobago	906	0	0	0	0	0	0	0	0	0	0	0	906	30
United Kingdom	3,052	29	0	0	368	0	0	0	0	0	(s)	397	3,449	115
Virgin Islands	0	0	774	0	1,038	787	273	1,654	2,854	0	0	7,378	7,378	246
Zaire	199	0	0	0	0	0	0	0	0	0	0	0	199	7
Other Western Hemisphere	0	0	0	0	0	0	0	0	622	0	0	622	622	21
Other Eastern Hemisphere	534	0	0	0	613	0	0	250	366	0	582	1,811	2,345	78
Subtotal Other	16,203	265	1,597	1,395	5,536	975	273	3,790	12,335	198	889	27,253	43,456	1,449
Total Imports	26,167	610	1,814	1,395	6,876	1,200	273	7,322	18,223	415	1,976	40,106	66,273	2,209
							PAD District II							
Arab OPEC														
Algeria	486	0	0	0	0	0	0	0	0	0	0	0	486	16
Subtotal Arab OPEC	486	0	0	0	0	0	0	0	0	0	0	0	486	16
Other OPEC														
Ecuador	372	0	0	0	0	0	0	0	0	0	0	0	372	12
Nigeria	1,363	0	0	0	0	0	0	0	0	0	0	0	1,363	45
Subtotal Other OPEC	1,734	0	0	0	0	0	0	0	0	0	0	0	1,734	58

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, June 1984 (Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 2	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
							PAD District II							
Other														
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	6,010	3,158	214	0	82	0	0	438	133	199	52	4,276	10,285	343
Congo	492	0	0	0	0	0	0	0	0	0	0	0	492	16
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	4,304	0	0	0	0	0	0	0	0	0	0	0	4,304	143
Netherlands	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peru	222	0	0	0	0	0	0	0	0	0	0	0	222	7
Trinidad and Tobago	824	0	0	0	0	0	0	0	0	0	0	0	824	27
United Kingdom	0	1	0	0	0	0	0	0	0	0	(s)	1	1	(s)
Other Western Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	0	(s)	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Subtotal Other	11,852	3,160	214	0	82	0	0	438	133	199	52	4,277	16,129	538
Total Imports	14,073	3,160	214	0	82	0	0	438	133	199	52	4,277	18,350	612
							PAD District III							
Arab OPEC														
Algeria	3,470	0	0	0	0	0	0	0	0	0	964	964	4,433	148
Iraq	101	0	0	0	0	0	0	0	0	0	0	0	101	3
Kuwait	1,068	0	0	0	0	0	0	0	792	0	0	792	1,860	62
Saudi Arabia	9,268	0	0	0	0	0	0	0	0	0	0	0	9,268	309
United Arab Emirates	550	0	0	0	0	0	0	0	0	0	0	0	550	18
Subtotal Arab OPEC	14,457	0	0	0	0	0	0	0	792	0	964	1,756	16,212	540
Other OPEC														
Ecuador	701	0	0	0	0	0	0	0	0	0	0	0	701	23
Gabon	719	0	0	0	0	0	0	0	0	0	0	0	719	24
Indonesia	2,890	0	0	0	0	0	0	0	406	0	0	406	3,297	110
Nigeria	2,743	0	288	0	0	0	0	0	0	0	0	288	3,031	101
Venezuela	4,994	0	977	0	227	0	0	0	245	0	0	1,449	6,444	215
Subtotal Other OPEC	12,047	0	1,265	0	227	0	0	0	651	0	0	2,144	14,191	473
Other														
Angola	694	0	0	0	0	0	0	0	0	0	0	0	694	23
Australia	0	0	0	0	0	0	0	0	0	0	48	48	48	2
Bahamas	0	0	784	0	0	0	0	0	0	0	0	784	784	26
Brazil	0	0	0	0	214	0	0	0	0	37	0	252	252	8
Canada	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Congo	0	0	0	0	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Malaysia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mexico	12,394	366	907	0	0	29	0	1	0	(s)	86	1,389	13,783	459
Netherlands	0	0	0	0	0	0	0	0	0	0	46	46	46	2
Netherlands Antilles	0	0	482	0	0	0	0	0	0	0	0	482	482	16
Norway	1,984	0	0	0	0	0	0	0	0	0	0	0	1,984	66
Puerto Rico	0	0	0	0	0	0	0	0	0	233	0	233	233	8
Trinidad and Tobago	1,376	0	0	0	0	0	0	0	0	0	0	0	1,376	46
United Kingdom	6,102	0	0	0	0	0	0	0	0	0	(s)	(s)	6,102	203

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
							PAD District III							
Other														
Virgin Islands	0	0	523	0	0	0	0	0	37	104	0	664	664	22
Zaire	970	0	0	0	0	0	0	0	0	0	0	0	970	32
Other Western Hemisphere	149	0	0	0	0	0	0	0	0	54	(s)	54	203	7
Other Eastern Hemisphere	2,621	0	872	18	0	0	0	0	0	292	(s)	1,182	3,803	127
Subtotal Other	26,290	366	3,567	18	214	29	0	1	37	720	180	5,133	31,423	1,047
Total Imports	52,794	366	4,833	18	441	29	0	1	1,480	720	1,144	9,032	61,826	2,061
							PAD District IV							
Other														
Canada	944	208	0	0	47	0	0	97	2	(s)	113	468	1,411	47
France	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Other	944	208	0	0	47	0	0	97	2	(s)	113	468	1,411	47
Total Imports	944	208	0	0	47	0	0	97	2	(s)	113	468	1,411	47
							PAD District V							
Arab OPEC														
Algeria	0	0	0	0	0	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Arab OPEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other OPEC														
Ecuador	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Indonesia	7,144	0	0	0	67	37	0	13	205	235	(s)	556	7,700	257
Venezuela	214	0	0	0	0	0	0	0	0	0	0	0	214	7
Subtotal Other OPEC	7,358	0	0	0	67	37	0	13	205	235	(s)	556	7,914	264
Other														
Australia	600	0	0	0	169	9	0	29	19	0	0	227	826	28
Brazil	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	376	392	15	0	9	8	0	34	7	36	1	502	878	29
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Malaysia	0	0	0	0	97	0	0	13	45	0	0	155	155	5
Mexico	0	3	0	0	0	0	0	(s)	6	0	3	11	11	(s)
People's Republic of China	0	0	0	606	267	0	0	0	0	0	3	876	876	29
Puerto Rico	0	0	0	0	0	0	0	0	0	0	50	50	50	2
United Kingdom	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	0	(s)	0	165	109	44	0	38	163	0	22	541	541	18
Subtotal Other	976	394	15	771	651	62	0	114	240	36	78	2,362	3,337	111
Total Imports	8,334	394	15	771	718	98	0	126	445	271	79	2,918	11,251	375

---

[1] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[2] Includes aviation gasoline, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - June 1984 (Thousand Barrels)

Source	Crude Oil [1]	LPG	Unfin-ished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts [2]	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
All PAD Districts														
Arab OPEC														
Algeria	36,383	180	253	0	434	327	0	2,941	11,634	2,046	3,226	21,040	57,423	316
Iraq	102	0	0	0	0	0	0	0	0	0	0	0	102	1
Kuwait	3,904	0	0	0	0	0	0	0	3,685	0	0	3,685	7,589	42
Saudi Arabia	62,777	503	1,119	0	0	0	0	0	1,013	0	(s)	2,635	65,412	359
United Arab Emirates	14,757	0	795	546	0	221	0	0	1,745	0	1,586	4,894	19,650	108
Subtotal Arab OPEC	117,923	683	2,167	546	434	548	0	2,941	18,077	2,046	4,812	32,254	150,176	825
Other OPEC														
Ecuador	9,040	0	0	0	0	0	0	0	1,392	0	0	1,392	10,432	57
Gabon	8,535	0	0	0	0	0	0	0	246	60	0	306	8,841	49
Indonesia	50,152	1,356	1,787	0	913	128	0	266	3,973	467	72	8,962	59,114	325
Iran	2,071	0	0	0	0	0	0	0	0	0	0	0	2,071	11
Nigeria	45,811	0	1,582	0	0	0	0	53	90	0	0	1,725	47,536	261
Venezuela	45,947	0	2,788	669	10,115	2,206	0	10,044	23,473	68	506	49,869	95,815	526
Subtotal Other OPEC	161,556	1,356	6,156	669	11,029	2,335	0	10,363	29,175	595	578	62,255	223,811	1,230
Other														
Angola	15,867	0	0	0	0	0	0	0	568	0	0	568	16,435	90
Australia	2,789	96	0	0	311	36	0	67	832	0	135	1,477	4,266	23
Bahamas	0	0	5,538	0	0	659	69	3,535	4,749	0	2,111	16,661	16,661	92
Bolivia	260	0	0	0	0	0	0	0	0	0	0	0	260	1
Brazil	2	0	0	0	4,231	0	0	0	5,079	202	24	9,537	9,538	52
Brunei	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	62,547	34,544	1,826	75	3,261	8	32	6,532	4,794	1,719	2,350	55,141	117,688	647
Congo	5,427	0	0	0	0	0	0	0	910	0	0	910	6,337	35
Egypt	1,842	0	0	0	0	0	0	0	0	0	0	0	1,842	10
France	0	(s)	(s)	0	161	0	(s)	0	0	(s)	11	173	173	1
Ghana	0	0	0	0	0	0	0	0	119	0	0	119	119	1
Liberia	0	0	0	0	0	0	0	0	1,749	0	0	1,749	1,749	10
Malaysia	0	0	125	0	158	7	0	20	99	0	0	409	409	2
Mexico	121,033	1,472	5,383	3,511	439	244	0	1,093	728	1	219	13,089	134,122	737
Netherlands	1,045	(s)	0	349	4,734	196	0	6,171	988	331	513	13,283	14,327	79
Netherlands Antilles	0	28	6,983	426	5,831	606	0	2,197	25,198	0	104	41,372	41,372	227
Norway	19,206	(s)	0	0	0	451	0	366	0	0	0	817	20,023	110
Oman	993	0	0	0	0	0	0	0	1,239	0	0	1,239	2,231	12
People's Republic of China	1,665	0	321	3,704	599	0	0	0	0	347	3	4,974	6,639	36
Peru	224	0	373	0	0	0	0	0	4,322	0	0	4,695	4,918	27
Puerto Rico	0	0	1,125	0	2,470	253	0	1,011	0	2,212	1,202	8,274	8,274	45
Romania	0	0	252	2,513	917	0	0	0	389	183	2,870	7,126	7,126	39
Spain	0	0	218	0	967	1,016	0	123	782	0	18	3,123	3,123	17
Trinidad and Tobago	13,534	0	13	0	0	0	0	0	829	7	16	865	14,400	79
Tunisia	2	0	0	0	0	0	0	0	0	0	0	0	2	(s)
United Kingdom	59,380	317	737	370	2,194	325	0	163	655	156	709	5,626	65,005	357
Virgin Islands	0	0	6,788	0	9,518	4,219	1,291	10,628	25,088	255	235	58,022	58,022	319
Zaire	5,526	0	0	0	0	0	0	0	0	0	0	0	5,526	30
Other Western Hemisphere	572	127	1,699	0	0	0	6	43	5,949	203	144	8,170	8,742	48

See footnotes at end of table.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - June 1984
(Thousand Barrels)
(continued)

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
							All PAD Districts							
Other														
Other Eastern Hemisphere	21,764	2	5,346	1,033	6,972	1,473	60	2,379	8,861	1,145	1,960	29,230	50,994	280
Subtotal Other	333,679	36,585	36,729	11,982	42,765	9,492	1,458	34,327	93,923	6,761	12,625	286,646	620,325	3,408
Total Imports	613,157	38,623	45,052	13,197	54,228	12,375	1,458	47,631	141,175	9,401	18,015	381,155	994,312	5,463
							PAD District I							
Arab OPEC														
Algeria	9,165	180	0	0	434	327	0	2,890	11,634	218	743	16,426	25,591	141
Kuwait	253	0	0	0	0	0	0	0	0	0	0	0	253	1
Saudi Arabia	12,039	503	867	0	0	0	0	0	0	0	(s)	1,370	13,409	74
United Arab Emirates	436	0	0	546	0	0	0	0	434	0	1,338	2,318	2,754	15
Subtotal Arab OPEC	21,893	683	867	546	434	327	0	2,890	12,068	218	2,081	20,114	42,006	231
Other OPEC														
Ecuador	302	0	0	0	0	0	0	0	1,392	0	0	1,392	1,694	9
Gabon	1,575	0	0	0	0	0	0	0	246	60	0	306	1,881	10
Indonesia	13,694	0	228	0	0	0	0	0	1,014	0	0	1,242	14,936	82
Nigeria	14,455	0	0	0	0	0	0	50	90	0	0	140	14,595	80
Venezuela	11,879	0	0	0	8,877	2,206	0	10,044	22,597	0	339	44,064	55,942	307
Subtotal Other OPEC	41,904	0	228	0	8,877	2,206	0	10,094	25,340	60	339	47,144	89,049	489
Other														
Angola	9,574	0	0	0	0	0	0	0	568	0	0	568	10,142	56
Australia	0	0	0	0	0	0	0	0	746	0	0	746	746	4
Bahamas	0	0	481	0	0	659	69	3,256	4,749	0	180	9,394	9,394	52
Brazil	2	0	0	0	3,076	0	0	0	4,816	0	(s)	7,892	7,894	43
Canada	6,460	1,546	36	0	1,370	0	31	4,388	3,181	116	1,060	11,729	18,189	100
Congo	2,432	0	0	0	0	0	0	0	910	0	0	910	3,342	18
Egypt	1,168	0	0	0	0	0	0	0	0	0	0	0	1,168	6
France	0	(s)	0	0	161	0	0	0	0	(s)	1	162	162	1
Ghana	0	0	0	0	0	0	0	0	119	0	0	119	119	1
Liberia	0	0	0	0	0	0	0	0	1,749	0	0	1,749	1,749	10
Mexico	15,078	0	0	3,216	(s)	215	0	885	328	0	33	4,678	19,756	109
Netherlands	1	(s)	0	190	4,734	196	0	6,171	988	36	1	12,316	12,317	68
Netherlands Antilles	0	0	5,984	426	4,753	567	0	1,838	25,006	0	7	38,581	38,581	212
Norway	13,053	0	0	0	0	89	0	366	0	0	0	456	13,508	74
Oman	993	0	0	0	0	0	0	0	585	0	0	585	1,578	9
People's Republic of China	1,305	0	0	0	0	0	0	0	0	0	(s)	(s)	1,305	7
Peru	2	0	0	0	0	0	0	0	4,060	0	0	4,060	4,062	22
Puerto Rico	0	0	1,125	0	2,470	253	0	772	0	895	1,152	6,668	6,668	37
Romania	0	0	252	2,291	917	0	0	0	389	183	2,870	6,904	6,904	38
Spain	0	0	0	0	967	825	0	123	782	0	(s)	2,697	2,697	15
Trinidad and Tobago	2,290	0	13	0	0	0	0	0	829	7	0	849	3,139	17
Tunisia	2	0	0	0	0	0	0	0	0	0	0	0	2	(s)
United Kingdom	29,540	316	471	79	2,067	154	0	163	655	(s)	283	4,186	33,726	185

See footnotes at end of table.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - June 1984
(Thousand Barrels)
(continued)

Source	Crude Oil [1]	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products [2]	Total Products	Total Petroleum	Total (Daily Average)
							PAD District I							
Other														
Virgin Islands	0	0	3,150	0	9,518	4,219	1,291	10,628	24,752	0	0	53,559	53,559	294
Zaire	2,768	0	0	0	0	0	0	0	0	0	0	0	2,768	15
Other Western Hemisphere	0	127	611	0	0	0	0	32	5,949	0	8	6,726	6,726	37
Other Eastern Hemisphere	4,169	2	4	800	6,382	627	60	2,185	6,346	455	1,053	17,914	22,083	121
Subtotal Other	88,837	1,990	12,129	7,002	36,417	7,804	1,451	30,808	87,505	1,692	6,648	193,445	282,282	1,551
Total Imports	152,633	2,673	13,223	7,548	45,728	10,337	1,451	43,792	124,913	1,970	9,068	260,703	413,336	2,271
							PAD District II							
Arab OPEC														
Algeria	4,739	0	0	0	0	0	0	0	0	0	0	0	4,739	26
Saudi Arabia	2,092	0	0	0	0	0	0	0	0	0	0	0	2,092	11
United Arab Emirates	1,075	0	0	0	0	0	0	0	0	0	0	0	1,075	6
Subtotal Arab OPEC	7,906	0	0	0	0	0	0	0	0	0	0	0	7,906	43
Other OPEC														
Ecuador	1,430	0	0	0	0	0	0	0	0	0	0	0	1,430	8
Indonesia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Iran	1,040	0	0	0	0	0	0	0	0	0	0	0	1,040	6
Nigeria	4,832	0	203	0	0	0	0	0	0	0	0	203	5,035	28
Venezuela	417	0	0	0	0	0	0	0	0	0	0	0	417	2
Subtotal Other OPEC	7,719	0	203	0	0	0	0	0	0	0	0	203	7,922	44
Other														
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bahamas	0	0	218	0	0	0	0	0	0	0	0	218	218	1
Canada	44,859	27,869	1,655	75	667	0	0	1,383	1,517	1,284	507	34,956	79,815	439
Congo	1,427	0	0	0	0	0	0	0	0	0	0	0	1,427	8
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	24,613	0	0	0	0	0	0	0	0	0	0	0	24,613	135
Netherlands	1,044	0	0	0	0	0	0	0	0	0	0	0	1,044	6
Norway	519	0	0	0	0	0	0	0	0	0	0	0	519	3
Peru	222	0	0	0	0	0	0	0	0	0	0	0	222	1
Trinidad and Tobago	5,107	0	0	0	0	0	0	0	0	0	0	0	5,107	28
United Kingdom	1,727	1	0	0	0	0	0	0	0	0	1	2	1,730	10
Other Western Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	407	(s)	0	0	0	0	0	0	0	0	2	2	409	2
Subtotal Other	79,924	27,870	1,873	75	667	0	0	1,383	1,517	1,284	510	35,179	115,103	632
Total Imports	95,550	27,870	2,077	75	667	0	0	1,383	1,517	1,284	510	35,382	130,932	719

See footnotes at end of table.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - June 1984
(Thousand Barrels)
(continued)

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
							PAD District III							
Arab OPEC														
Algeria	21,545	0	0	0	0	0	0	50	0	1,828	2,483	4,361	25,906	142
Iraq	102	0	0	0	0	0	0	0	0	0	0	0	102	1
Kuwait	3,652	0	0	0	0	0	0	0	3,685	0	0	3,685	7,336	40
Saudi Arabia	48,646	0	0	0	0	0	0	0	1,013	0	0	1,013	49,659	273
United Arab Emirates	13,246	0	527	0	0	221	0	0	1,311	0	249	2,307	15,553	85
Subtotal Arab OPEC	87,190	0	527	0	0	221	0	50	6,010	1,828	2,732	11,366	98,557	542
Other OPEC														
Ecuador	6,948	0	0	0	0	0	0	0	0	0	0	0	6,948	38
Gabon	6,960	0	0	0	0	0	0	0	0	0	0	0	6,960	38
Indonesia	9,409	1,356	0	0	0	0	0	0	1,719	0	71	3,146	12,556	69
Iran	1,032	0	0	0	0	0	0	0	0	0	0	0	1,032	6
Nigeria	26,524	0	1,379	0	0	0	0	3	0	0	0	1,382	27,906	153
Venezuela	33,238	0	2,788	669	992	0	0	0	876	68	167	5,559	38,797	213
Subtotal Other OPEC	84,112	1,356	4,166	669	992	0	0	3	2,595	68	238	10,087	94,198	518
Other														
Angola	6,294	0	0	0	0	0	0	0	0	0	0	0	6,294	35
Australia	2	0	0	0	0	0	0	0	0	0	135	135	136	1
Bahamas	0	0	4,839	0	0	0	0	279	0	0	1,931	7,049	7,049	39
Bolivia	260	0	0	0	0	0	0	0	0	0	0	0	260	1
Brazil	0	0	0	0	1,156	0	0	0	263	202	23	1,645	1,645	9
Canada	1	0	0	0	0	0	0	0	0	186	71	257	258	1
Congo	1,567	0	0	0	0	0	0	0	0	0	0	0	1,567	9
Egypt	674	0	0	0	0	0	0	0	0	0	0	0	674	4
France	0	0	(s)	0	0	0	(s)	0	0	0	10	10	10	(s)
Malaysia	0	0	125	0	0	0	0	0	0	0	0	125	125	1
Mexico	81,343	1,436	5,383	294	439	29	0	198	360	1	169	8,309	89,652	493
Netherlands	0	0	0	160	0	0	0	0	0	295	512	967	967	5
Netherlands Antilles	0	28	998	0	1,078	0	0	358	0	0	30	2,492	2,492	14
Norway	5,635	(s)	0	0	0	361	0	0	0	0	0	361	5,996	33
Oman	0	0	0	0	0	0	0	0	654	0	0	654	654	4
People's Republic of China	360	0	0	0	0	0	0	0	0	0	0	0	360	2
Peru	0	0	373	0	0	0	0	0	262	0	0	634	634	3
Puerto Rico	0	0	0	0	0	0	0	0	0	1,317	0	1,317	1,317	7
Romania	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	218	0	0	190	0	0	0	0	18	427	427	2
Trinidad and Tobago	6,137	0	0	0	0	0	0	0	0	0	16	16	6,153	34
United Kingdom	28,112	0	266	291	127	171	0	(s)	0	156	426	1,437	29,550	162
Virgin Islands	0	0	3,638	0	0	0	0	0	335	255	235	4,464	4,464	25
Zaire	2,758	0	0	0	0	0	0	0	0	0	0	0	2,758	15
Other Western Hemisphere	572	0	1,088	0	0	0	6	12	0	203	136	1,444	2,017	11
Other Eastern Hemisphere	15,784	0	4,598	18	0	693	0	56	1,441	610	103	7,520	23,303	128
Subtotal Other	149,499	1,463	21,527	764	2,800	1,445	6	903	3,314	3,225	3,815	39,262	188,760	1,037
Total Imports	320,800	2,819	26,220	1,432	3,792	1,665	6	956	11,919	5,121	6,785	60,715	381,515	2,096

See footnotes at end of table.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - June 1984 (Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD District IV														
Other														
Canada	5,939	2,453	0	0	340	0	0	647	89	3	670	4,201	10,140	56
France	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Other	5,939	2,453	0	0	340	0	0	647	89	3	670	4,201	10,140	56
Total Imports	5,939	2,453	0	0	340	0	0	647	89	3	670	4,201	10,140	56
PAD District V														
Arab OPEC														
Algeria	934	0	253	0	0	0	0	0	0	0	0	253	1,187	7
Saudi Arabia	0	0	252	0	0	0	0	0	0	0	0	252	252	1
United Arab Emirates	0	0	269	0	0	0	0	0	0	0	0	269	269	1
Subtotal Arab OPEC	934	0	774	0	0	0	0	0	0	0	0	774	1,707	9
Other OPEC														
Ecuador	360	0	0	0	0	0	0	0	0	0	0	0	360	2
Indonesia	27,048	0	1,559	0	913	128	0	266	1,239	467	1	4,574	31,623	174
Venezuela	413	0	0	0	246	0	0	0	0	0	0	246	659	4
Subtotal Other OPEC	27,821	0	1,559	0	1,159	128	0	266	1,239	467	1	4,821	32,642	179
Other														
Australia	2,788	96	0	0	311	36	0	67	87	0	(s)	596	3,384	19
Brazil	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brunei	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	5,288	2,677	135	0	885	8	(s)	114	7	130	42	3,998	9,287	51
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Malaysia	0	0	0	0	158	7	0	20	99	0	0	284	284	2
Mexico	0	36	0	0	0	0	0	10	40	0	17	102	102	1
Netherlands	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Netherlands Antilles	0	0	0	0	0	40	0	0	192	0	67	299	299	2
Norway	0	0	0	0	0	0	0	0	0	0	0	0	0	0
People's Republic of China	0	0	321	3,704	599	0	0	0	0	347	3	4,974	4,974	27
Puerto Rico	0	0	0	0	0	0	0	239	0	0	50	288	288	2
Romania	0	0	0	222	0	0	0	0	0	0	0	222	222	1
United Kingdom	0	0	0	0	0	0	0	0	0	(s)	0	(s)	(s)	(s)
Other Eastern Hemisphere	1,404	(s)	743	215	589	153	0	137	1,073	81	802	3,795	5,199	29
Subtotal Other	9,481	2,809	1,200	4,141	2,542	244	(s)	587	1,498	557	982	14,560	24,040	132
Total Imports	38,235	2,809	3,533	4,141	3,702	372	(s)	853	2,737	1,023	983	20,154	58,389	321

[1] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[2] Includes aviation gasoline, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(S) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 20. Exports of Crude Oil and Petroleum Products by PAD District, June 1984
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) 1	0	428	0	0	6,237	6,665
Natural Gas Liquids	16	525	931	0	186	1,657
Pentanes Plus	0	79	0	0	0	79
Liquefied Petroleum Gases	16	446	931	0	186	1,579
Ethane	(s)	157	0	0	0	157
Propane	8	132	796	0	74	1,010
Normal Butane	8	79	135	0	112	333
Isobutane	0	79	0	0	0	79
Finished Motor Gasoline	58	0	76	0	381	514
Naphtha-Type Jet Fuel	0	0	81	0	0	81
Kerosene-Type Jet Fuel	0	0	155	0	36	191
Kerosene	4	0	1	0	(s)	6
Distillate Fuel Oil	2	0	472	0	1,114	1,589
Residual Fuel Oil	0	0	1,106	0	4,169	5,275
Naphtha < 400 Deg. for Petrochem. Feedstock	49	8	114	1	39	211
Other Oils > 400 Deg. for Petrochem. Feedstock	1	42	740	0	59	841
Special Naphthas	6	3	39	0	243	291
Lubricants	152	31	216	1	76	476
Waxes	4	(s)	29	0	4	37
Petroleum Coke	221	457	4,170	0	3,214	8,062
Asphalt	2	1	(s)	1	(s)	4
Miscellaneous Products	14	2	4	(s)	3	23
Total Product Exports	527	1,069	8,134	3	9,526	19,259
Total Exports	527	1,497	8,134	3	15,763	25,924

1 Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 21. Year-to-Date Exports Of Crude Oil And Petroleum Products By PAD District, January - June 1984 (Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) [1]	0	2,624	(s)	0	33,369	35,993
Natural Gas Liquids	213	3,305	4,460	(s)	1,037	9,016
Pentanes Plus	0	493	0	0	0	493
Liquefied Petroleum Gases	213	2,812	4,460	(s)	1,037	8,523
Ethane	(s)	986	(s)	0	0	986
Propane	92	831	3,536	(s)	416	4,876
Normal Butane	121	502	924	(s)	621	2,168
Isobutane	0	493	0	0	0	493
Finished Motor Gasoline	131	4	292	0	464	891
Naphtha-Type Jet Fuel	(s)	0	175	0	0	175
Kerosene-Type Jet Fuel	176	139	156	0	299	769
Kerosene	14	0	2	0	(s)	17
Distillate Fuel Oil	417	56	2,335	(s)	5,725	8,533
Residual Fuel Oil	433	0	10,799	0	17,681	28,913
Naphtha < 400 Deg. for Petrochem. Feedstock	357	53	726	6	150	1,292
Other Oils > 400 Deg. for Petrochem. Feedstock	2	131	2,627	0	263	3,022
Special Naphthas	40	67	190	3	247	546
Lubricants	752	177	1,878	7	277	3,092
Waxes	28	3	177	0	22	230
Petroleum Coke	1,356	1,183	20,606	4	14,213	37,362
Asphalt	14	12	12	3	10	50
Miscellaneous Products	91	11	60	(s)	18	180
Total Product Exports	4,023	5,139	44,495	23	40,407	94,087
Total Exports	4,023	7,763	44,495	23	73,776	130,080

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

(S) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, June 1984
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	0	0	155	0	0	0	14	(s)	(s)	0	159	329	11
Australia	0	3	(s)	0	0	0	5	14	(s)	126	(s)	29	177	6
Bahamas	0	(s)	1	0	0	0	0	2	0	0	0	(s)	3	(s)
Bahrain	0	0	0	0	0	0	(s)	(s)	0	0	0	(s)	(s)	(s)
Belgium & Luxembourg	0	1	0	0	0	0	2	1	(s)	792	(s)	(s)	796	27
Brazil	0	0	0	0	0	0	(s)	1	(s)	0	0	3	3	(s)
Cameroon	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Canada	428	447	57	(s)	15	19	6	74	2	624	2	152	1,827	61
Chile	0	0	46	17	112	31	0	13	(s)	(s)	(s)	(s)	219	7
China (Taiwan)	0	(s)	0	0	140	1,605	(s)	10	(s)	(s)	(s)	2	1,757	59
Colombia	0	0	0	0	0	0	0	6	13	0	0	2	22	1
Costa Rica	0	(s)	0	0	0	0	3	4	(s)	22	(s)	1	30	1
Denmark	0	0	0	0	0	0	0	(s)	(s)	0	0	(s)	1	(s)
Dominican Republic	0	24	0	0	0	0	0	2	(s)	0	0	(s)	27	1
Ecuador	0	50	0	0	0	0	0	1	(s)	0	(s)	(s)	51	2
Egypt	0	0	0	0	0	0	0	5	(s)	0	0	(s)	5	(s)
El Salvador	0	1	0	0	0	0	(s)	9	(s)	0	0	1	10	(s)
Finland	0	0	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
France	0	0	0	0	0	0	0	2	1	1,006	0	171	1,180	39
French Pacific Isl	0	0	0	0	0	350	0	(s)	0	0	0	0	350	12
Ghana	0	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Greece	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Guatemala	0	59	0	0	0	0	2	3	(s)	0	0	(s)	64	2
Guinea	0	0	0	0	0	115	0	1	0	0	0	(s)	116	4
Honduras	0	(s)	(s)	0	0	0	1	9	0	0	0	1	11	(s)
Hong Kong	0	0	0	0	0	0	(s)	1	(s)	0	(s)	(s)	2	(s)
India	0	0	0	0	0	0	0	(s)	0	0	0	8	8	(s)
Indonesia	0	0	0	0	(s)	0	0	5	0	0	(s)	6	11	(s)
Iran	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Israel	0	(s)	0	0	0	0	(s)	(s)	(s)	0	0	(s)	1	(s)
Italy	0	(s)	0	0	(s)	0	0	1	1	1,229	0	211	1,442	48
Ivory Coast	0	0	0	0	51	0	0	(s)	0	0	(s)	0	51	2
Jamaica	0	31	0	0	0	220	(s)	16	0	0	0	1	268	9
Japan	0	0	0	0	528	1,300	259	44	2	2,270	(s)	27	4,431	148
Jordan	0	0	0	0	0	0	0	1	0	0	0	0	1	(s)
Korea, Republic of	0	1	0	0	0	179	(s)	5	1	62	0	61	310	10
Kuwait	0	0	(s)	0	0	0	0	2	0	(s)	0	0	2	(s)
Lebanon	0	0	0	0	0	0	0	1	0	0	0	0	1	(s)
Liberia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malaysia	0	0	0	0	0	0	0	(s)	(s)	0	(s)	(s)	1	(s)
Mexico	0	825	4	36	0	0	1	51	3	50	0	9	980	33
Netherlands	0	1	0	0	0	0	3	(s)	(s)	652	(s)	64	720	24
Netherlands Antilles	0	(s)	0	64	244	209	0	(s)	0	0	0	(s)	518	17
New Zealand	0	(s)	377	0	107	0	0	1	(s)	(s)	(s)	(s)	485	16
Nicaragua	0	0	0	0	0	0	3	(s)	0	0	0	(s)	3	(s)
Nigeria	0	0	0	0	0	0	0	5	(s)	0	0	1	5	(s)
Norway	0	0	0	0	0	0	0	(s)	0	162	0	(s)	162	5
Pacific Trust Terr.	0	(s)	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Panama	0	28	0	0	289	531	(s)	9	(s)	16	0	(s)	874	29
Peru	0	0	0	0	0	0	(s)	2	0	0	0	(s)	2	(s)
Philippines	0	0	0	0	0	0	(s)	1	(s)	0	0	2	3	(s)
Puerto Rico	465	8	0	0	(s)	0	1	20	2	0	(s)	11	506	17
Rep. of South Africa	0	0	0	0	(s)	0	0	16	8	0	(s)	1	24	1

See footnotes at end of table.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Table 22. Exports of Crude Oil and Petroleum Products by Destination, June 1984 (Thousand Barrels)

(continued)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other2	Total	Total (Daily Average)
Saudi Arabia	0	4	0	0	0	0	0	10	(s)	0	0	3	17	1
Singapore	0	7	0	0	100	344	4	48	(s)	0	(s)	4	507	17
Spain	0	0	0	0	0	0	0	1	(s)	391	0	59	451	15
Surinam	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Sweden	0	0	0	0	0	0	0	2	(s)	287	(s)	1	289	10
Switzerland	0	0	0	0	0	0	0	(s)	(s)	0	0	(s)	(s)	(s)
Thailand	0	0	30	0	0	0	0	5	0	0	0	(s)	35	1
Trinidad and Tobago	0	41	0	0	0	0	0	1	0	0	0	(s)	42	1
Turkey	0	0	0	0	(s)	0	0	(s)	(s)	26	0	30	56	2
United Arab Emirates	0	(s)	0	0	0	0	(s)	11	0	31	0	16	58	2
United Kingdom	0	1	0	0	1	0	(s)	1	(s)	(s)	(s)	3	7	(s)
U.S.S.R.	0	0	0	0	0	0	0	32	0	0	0	0	32	1
Uruguay	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Venezuela	0	37	0	0	0	0	(s)	2	(s)	114	0	(s)	153	5
Virgin Islands	4,841	(s)	0	0	0	372	0	(s)	0	0	0	0	5,213	174
West Germany	0	0	0	0	0	0	0	2	1	53	0	68	125	4
Yugoslavia	0	0	0	0	0	0	0	(s)	0	55	0	(s)	55	2
Other	931	9	(s)	0	0	0	(s)	6	(s)	94	0	52	1,092	36
Total	6,665	1,579	514	272	1,589	5,275	291	476	37	8,062	4	1,159	25,924	864

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

[2] Includes pentanes plus, kerosene, naphtha less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January - June 1984
(Thousand Barrels)

Destination	Crude Oil[1]	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other[2]	Total	Total (Daily Average)
Argentina	0	(s)	0	155	0	0	4	72	1	(s)	0	159	393	2
Australia	0	4	(s)	0	1	800	25	34	1	890	1	67	1,823	10
Bahamas	0	46	5	(s)	535	859	0	9	(s)	0	0	2	1,456	8
Bahrain	0	0	0	0	(s)	0	(s)	1	0	229	0	(s)	231	1
Belgium & Luxembourg	0	6	(s)	0	0	0	3	54	1	3,967	(s)	4	4,035	22
Brazil	0	1	0	0	0	0	7	9	(s)	68	0	7	92	1
Cameroon	0	0	0	0	0	0	0	(s)	0	61	0	(s)	61	(s)
Canada	2,624	2,826	127	220	1,399	1,257	81	430	15	2,693	24	842	12,537	69
Chile	0	(s)	46	17	112	31	2	68	(s)	1	2	4	283	2
China (Taiwan)	0	1	0	0	400	3,063	(s)	60	(s)	92	(s)	6	3,623	20
Colombia	0	4	0	0	0	0	2	27	60	(s)	0	5	98	1
Costa Rica	0	49	0	0	0	0	12	24	(s)	22	10	6	123	1
Denmark	0	1	0	0	(s)	0	0	1	1	372	0	1	376	2
Dominican Republic	0	199	0	0	0	0	0	5	1	32	0	3	239	1
Ecuador	0	351	25	0	332	(s)	3	4	1	0	1	5	723	4
Egypt	0	1	0	0	(s)	0	(s)	11	(s)	0	0	1	13	(s)
El Salvador	0	1	0	0	0	0	1	28	(s)	0	0	2	33	(s)
Finland	0	0	0	0	0	0	0	3	(s)	0	0	2	5	(s)
France	0	38	1	0	1	405	(s)	8	9	3,336	0	744	4,542	25
French Pacific Isl	0	0	0	0	0	350	0	1	0	0	(s)	0	351	2
Ghana	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Greece	0	2	0	0	(s)	0	(s)	2	(s)	153	0	1	158	1
Guatemala	0	279	0	0	0	0	4	18	2	0	(s)	4	307	2
Guinea	0	(s)	0	0	0	358	(s)	5	0	0	0	(s)	364	2
Honduras	0	2	(s)	0	(s)	0	4	30	(s)	(s)	(s)	2	38	(s)
Hong Kong	0	1	0	0	0	1,394	2	8	1	0	1	4	1,411	8
India	0	0	0	0	(s)	0	0	17	(s)	38	(s)	27	82	(s)
Indonesia	0	1	0	0	(s)	0	(s)	20	(s)	175	(s)	7	203	1
Iran	0	0	0	0	0	0	1	1	0	0	0	0	1	(s)
Israel	0	1	0	0	0	0	2	1	(s)	(s)	0	4	8	(s)
Italy	0	156	0	0	(s)	2,948	3	4	3	4,931	(s)	813	8,860	49
Ivory Coast	0	0	0	0	174	156	0	13	0	0	(s)	(s)	344	2
Jamaica	0	154	25	0	0	330	(s)	58	(s)	0	(s)	5	573	3
Japan	0	6	(s)	0	1,538	5,030	296	165	14	7,669	(s)	241	14,959	82
Jordan	0	(s)	0	0	0	0	(s)	4	0	(s)	0	(s)	5	(s)
Korea, Republic of	0	3	0	0	668	1,064	1	24	3	350	0	219	2,331	13
Kuwait	0	3	(s)	0	0	0	(s)	11	0	(s)	0	(s)	14	(s)
Lebanon	0	0	0	0	0	0	0	3	0	0	0	(s)	3	(s)
Liberia	0	(s)	0	0	0	251	0	2	(s)	0	(s)	(s)	253	1
Malaysia	0	(s)	0	0	(s)	0	(s)	4	(s)	0	(s)	1	5	(s)
Mexico	0	3,325	22	218	(s)	0	12	460	45	223	1	46	4,352	24
Netherlands	0	140	0	0	0	577	41	41	3	4,265	(s)	475	5,541	30
Netherlands Antilles	0	3	51	128	732	1,812	(s)	2	0	0	0	(s)	2,727	15
New Zealand	0	(s)	443	0	301	0	1	3	(s)	276	(s)	6	1,031	6
Nicaragua	0	(s)	0	0	0	0	3	23	0	0	0	2	29	(s)
Nigeria	0	(s)	0	0	0	0	(s)	52	(s)	0	(s)	1	53	(s)
Norway	0	(s)	0	0	(s)	0	0	1	0	715	0	1	717	4
Pacific Trust Terr.	0	1	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
Panama	0	76	113	0	1,154	1,047	3	36	(s)	28	(s)	2	2,460	14
Peru	0	(s)	0	0	576	0	(s)	65	(s)	0	0	2	643	4
Philippines	0	3	0	0	0	0	2	9	(s)	0	0	55	70	(s)
Puerto Rico	4,803	59	1	(s)	(s)	188	3	102	8	(s)	1	125	5,292	29
Rep. of South Africa	0	1	0	0	(s)	0	(s)	54	38	141	1	287	522	3

See footnotes at end of table.

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January - June 1984 (Thousand Barrels)

(continued)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri- cants	Waxes	Petro- leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Saudi Arabia	0	49	0	0	(s)	0	(s)	128	(s)	0	0	22	200	1
Singapore	0	12	0	0	100	1,565	14	61	(s)	0	(s)	9	1,761	10
Spain	0	3	0	0	349	1,308	0	372	1	4,035	0	253	6,322	35
Surinam	0	0	0	0	0	0	0	5	0	35	0	1	41	(s)
Sweden	0	2	0	0	0	0	0	8	(s)	314	(s)	4	330	2
Switzerland	0	2	0	0	0	0	(s)	4	(s)	0	0	3	9	(s)
Thailand	0	(s)	30	0	0	0	1	36	(s)	(s)	0	62	129	1
Trinidad and Tobago	0	41	0	206	(s)	0	5	8	(s)	0	(s)	1	261	1
Turkey	0	(s)	0	0	(s)	0	(s)	1	(s)	302	0	174	477	3
United Arab Emirates	0	1	0	0	0	0	(s)	56	0	181	0	21	260	1
United Kingdom	0	42	(s)	0	7	1,087	1	31	2	67	(s)	16	1,254	7
U.S.S.R.	0	0	0	0	0	0	0	167	0	237	0	0	404	2
Uruguay	0	(s)	0	0	0	0	(s)	5	(s)	0	(s)	1	6	(s)
Venezuela	(s)	524	0	0	0	0	4	9	2	467	(s)	8	1,013	6
Virgin Islands	23,811	14	0	0	0	2,864	0	(s)	0	0	0	(s)	26,689	147
West Germany	0	(s)	0	0	0	0	(s)	64	12	479	(s)	83	638	4
Yugoslavia	0	0	0	0	0	0	0	(s)	(s)	341	0	(s)	341	2
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	35,993	8,523	891	944	8,533	28,913	546	3,092	230	37,362	50	5,004	130,080	715

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

[2] Includes pentanes plus, kerosene, naphtha less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(S) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, June 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil (incl. lease condensate)																	
Refinery	--	--	13,592	--	--	--	--	15,433	--	--	--	--	--	50,315	2,546	26,432	108,318
Tank Farms and Pipelines	--	--	1,405	--	--	--	--	60,912	--	--	--	--	--	97,481	9,583	26,230	195,611
Leases	--	--	58	--	--	--	--	1,589	--	--	--	--	--	16,918	1,330	1,639	21,534
Strategic Petroleum Reserve[1]	--	--	0	--	--	--	--	0	--	--	--	--	--	413,735	0	0	413,735
Alaskan In-Transit	--	--	0	--	--	--	--	0	--	--	--	--	--	0	0	27,229	27,229
Total	--	--	15,055	--	--	--	--	77,934	--	--	--	--	--	578,449	13,459	81,530	766,427
Total Stocks, All Oils (excl. Crude Oil)																	
Refinery	37,933	2,967	40,900	945	38,464	7,329	14,159	60,897	9,876	72,238	44,780	5,404	1,474	133,772	13,568	66,038	315,175
Bulk Terminal	--	--	106,811	--	--	--	--	80,917	--	--	--	--	--	84,997	3,253	24,517	300,495
Pipeline	--	--	26,037	--	--	--	--	36,630	--	--	--	--	--	40,036	2,745	4,986	110,434
Natural Gas Processing Plant	212	41	253	0	558	74	1,356	1,988	1,625	4,628	398	97	256	7,004	253	146	9,644
Total	--	--	174,001	--	--	--	--	180,432	--	--	--	--	--	265,809	19,819	95,687	735,748
Pentanes Plus																	
Refinery	16	0	16	0	49	36	123	208	106	138	127	18	11	400	17	16	657
Bulk Terminal	--	--	26	--	--	--	--	2,566	--	--	--	--	--	3,259	0	7	5,858
Pipeline	--	--	0	--	--	--	--	721	--	--	--	--	--	1,422	148	5	2,296
Natural Gas Processing Plant	3	10	13	0	56	23	262	341	452	588	132	42	32	1,246	87	23	1,710
Total	--	--	55	--	--	--	--	3,836	--	--	--	--	--	6,327	252	51	10,521
Liquefied Petroleum Gases																	
Refinery	669	14	683	176	1,836	164	579	2,755	151	922	1,824	36	27	2,960	281	671	7,350
Bulk Terminal	--	--	1,192	--	--	--	--	20,526	--	--	--	--	--	53,948	66	989	76,721
Pipeline	--	--	1,213	--	--	--	--	7,338	--	--	--	--	--	5,415	430	0	14,396
Natural Gas Processing Plant	185	31	216	0	500	51	1,094	1,645	1,022	4,038	266	53	224	5,603	154	123	7,741
Total	--	--	3,304	--	--	--	--	32,264	--	--	--	--	--	67,926	931	1,783	106,208
Ethane																	
Refinery	23	0	23	0	3	7	0	10	0	6	0	0	0	6	0	0	39
Bulk Terminal	--	--	0	--	--	--	--	2,704	--	--	--	--	--	13,022	0	0	15,726
Pipeline	--	--	0	--	--	--	--	1,756	--	--	--	--	--	1,756	128	0	3,640
Natural Gas Processing Plant	0	0	0	0	25	0	238	263	107	1,408	0	1	17	1,533	1	0	1,797
Total	--	--	23	--	--	--	--	4,733	--	--	--	--	--	16,317	129	0	21,202

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, June 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Propane for Petrochemical Feedstock Use																	
Refinery	44	0	44	0	81	0	1	82	2	7	51	0	0	60	0	0	186
Total	—	—	44	—	—	—	—	82	—	—	—	—	—	60	0	0	186
Propane For Other Uses																	
Refinery	547	6	553	3	1,183	22	171	1,379	49	48	1,356	4	3	1,460	155	269	3,816
Bulk Terminal	—	—	903	—	—	—	—	14,591	—	—	—	—	—	24,168	65	283	40,010
Pipeline	—	—	1,162	—	—	—	—	3,948	—	—	—	—	—	2,500	177	0	7,787
Natural Gas Processing Plant	153	31	184	0	346	23	517	886	544	1,428	136	25	114	2,247	102	108	3,527
Total	—	—	2,802	—	—	—	—	20,804	—	—	—	—	—	30,375	499	660	55,140
Normal Butane For Petro. Feed Use																	
Refinery	0	0	0	0	0	24	0	24	0	7	0	1	0	8	5	2	39
Total	—	—	0	—	—	—	—	24	—	—	—	—	—	8	5	2	39
Normal Butane For Other Uses																	
Refinery	55	8	63	115	345	76	251	787	69	705	175	22	17	988	89	367	2,294
Bulk Terminal	—	—	270	—	—	—	—	2,203	—	—	—	—	—	10,733	1	510	13,717
Pipeline	—	—	51	—	—	—	—	945	—	—	—	—	—	774	82	0	1,852
Natural Gas Processing Plant	30	0	30	0	105	20	284	409	312	818	84	19	79	1,312	42	8	1,801
Total	—	—	414	—	—	—	—	4,344	—	—	—	—	—	13,807	214	885	19,664
Isobutane																	
Refinery	0	0	0	58	224	35	156	473	31	149	242	9	7	438	32	33	976
Bulk Terminal	—	—	19	—	—	—	—	1,028	—	—	—	—	—	6,025	0	196	7,268
Pipeline	—	—	0	—	—	—	—	689	—	—	—	—	—	385	43	0	1,117
Natural Gas Processing Plant	2	0	2	0	24	8	55	87	59	384	46	8	14	511	9	7	616
Total	—	—	21	—	—	—	—	2,277	—	—	—	—	—	7,359	84	236	9,977
Other Hydrocarbons and Alcohol																	
Refinery	92	0	92	0	136	0	1	137	1	88	10	0	0	99	0	2	330
Total	—	—	92	—	—	—	—	137	—	—	—	—	—	99	0	2	330
Unfinished Oils																	
Refinery																	
Naphthas and Lighter	4,378	310	4,688	35	2,839	113	1,151	4,138	836	7,642	5,343	259	25	14,105	559	5,393	28,883
Kerosene and Lighter Gas Oils	1,495	9	1,504	0	2,087	3	429	2,519	581	5,464	1,945	56	5	8,051	612	3,644	16,330
Heavy Gas Oils	5,667	287	5,954	103	3,834	668	1,849	6,454	803	9,668	6,801	128	180	17,580	813	11,800	42,601
Residuum	2,605	210	2,815	1	2,895	28	1,290	4,214	536	5,343	3,811	30	6	9,726	735	5,477	22,967
Total	14,145	816	14,961	139	11,655	812	4,719	17,325	2,756	28,117	17,900	473	216	49,462	2,719	26,314	110,781

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, June 1984
(Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Motor Gasoline Blending Components																	
Refinery	5,349	103	5,452	45	4,807	683	1,453	6,988	1,397	9,551	5,675	119	183	16,925	2,349	8,312	40,026
Bulk Terminal	--	--	84	--	--	--	--	185	--	--	--	--	--	758	0	239	1,266
Pipeline	--	--	0	--	--	--	--	2	--	--	--	--	--	0	0	0	2
Total	--	--	5,536	--	--	--	--	7,175	--	--	--	--	--	17,683	2,349	8,551	41,294
Aviation Gasoline Blending Components																	
Refinery	11	0	11	0	101	0	55	156	0	0	149	0	0	149	0	11	327
Total	--	--	11	--	--	--	--	156	--	--	--	--	--	149	0	11	327
Total Finished Motor Gasoline																	
Refinery	5,061	328	5,389	63	6,807	1,125	2,361	10,356	2,068	9,343	4,959	1,839	224	18,433	2,482	9,025	45,685
Bulk Terminal	--	--	42,649	--	--	--	--	30,886	--	--	--	--	--	14,601	1,904	11,883	101,923
Pipeline	--	--	15,736	--	--	--	--	17,066	--	--	--	--	--	20,253	1,195	2,280	56,530
Natural Gas Processing Plant	24	0	24	0	0	0	0	0	0	0	0	0	0	0	11	0	35
Total	--	--	63,798	--	--	--	--	58,308	--	--	--	--	--	53,287	5,592	23,188	204,173
Finished Leaded Motor Gasoline																	
Refinery	1,810	224	2,034	34	3,078	733	1,295	5,140	1,259	4,333	1,563	664	118	7,937	1,626	4,095	20,832
Bulk Terminal	--	--	20,443	--	--	--	--	15,453	--	--	--	--	--	8,049	1,189	5,758	50,892
Pipeline	--	--	6,706	--	--	--	--	8,561	--	--	--	--	--	7,960	772	931	24,930
Natural Gas Processing Plant	14	0	14	0	0	0	0	0	0	0	0	0	0	0	8	0	22
Total	--	--	29,197	--	--	--	--	29,154	--	--	--	--	--	23,946	3,595	10,784	96,676
Finished Unleaded Motor Gasoline																	
Refinery	3,251	104	3,355	29	3,729	392	1,066	5,216	809	5,010	3,396	1,175	106	10,496	856	4,930	24,853
Bulk Terminal	--	--	22,206	--	--	--	--	15,433	--	--	--	--	--	6,552	715	6,125	51,031
Pipeline	--	--	9,030	--	--	--	--	8,505	--	--	--	--	--	12,293	423	1,349	31,600
Natural Gas Processing Plant	10	0	10	0	0	0	0	0	0	0	0	0	0	0	3	0	13
Total	--	--	34,601	--	--	--	--	29,154	--	--	--	--	--	29,341	1,997	12,404	107,497
Finished Aviation Gasoline																	
Refinery	34	0	34	0	95	0	14	109	109	293	152	0	0	554	35	240	972
Bulk Terminal	--	--	449	--	--	--	--	332	--	--	--	--	--	77	12	295	1,165
Pipeline	--	--	0	--	--	--	--	91	--	--	--	--	--	10	9	37	147
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	74	0	0	0	0	74	0	0	74
Total	--	--	483	--	--	--	--	532	--	--	--	--	--	715	56	572	2,358

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, June 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachi-an #1	Total	Appa-lachi-an #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Naphtha-Type Jet Fuel																	
Refinery	269	32	301	0	502	104	127	733	306	704	316	184	177	1,687	221	940	3,882
Bulk Terminal	—	—	405	—	—	—	—	661	—	—	—	—	—	118	6	497	1,687
Pipeline	—	—	172	—	—	—	—	153	—	—	—	—	—	426	106	480	1,337
Total	—	—	878	—	—	—	—	1,547	—	—	—	—	—	2,231	333	1,917	6,906
Kerosene-Type Jet Fuel																	
Refinery	912	0	912	26	1,311	159	159	1,655	291	2,928	2,934	6	57	6,216	323	3,282	12,388
Bulk Terminal	—	—	4,924	—	—	—	—	4,105	—	—	—	—	—	1,839	226	1,779	12,873
Pipeline	—	—	3,164	—	—	—	—	2,087	—	—	—	—	—	4,645	239	604	10,739
Total	—	—	9,000	—	—	—	—	7,847	—	—	—	—	—	12,700	788	5,665	36,000
Kerosene																	
Refinery	252	87	339	0	373	44	347	764	88	520	594	46	87	1,335	0	209	2,647
Bulk Terminal	—	—	3,093	—	—	—	—	675	—	—	—	—	—	532	37	36	4,373
Pipeline	—	—	36	—	—	—	—	174	—	—	—	—	—	655	0	0	865
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2
Total	—	—	3,468	—	—	—	—	1,613	—	—	—	—	—	2,524	37	245	7,887
Distillate Fuel Oils																	
Refinery	4,677	279	4,956	57	4,582	1,616	2,466	8,721	996	8,470	4,004	567	255	14,292	2,096	5,321	35,386
Bulk Terminal	—	—	29,295	—	—	—	—	14,110	—	—	—	—	—	4,859	749	5,079	54,092
Pipeline	—	—	5,692	—	—	—	—	8,913	—	—	—	—	—	6,924	618	1,241	23,388
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	2
Total	—	—	39,943	—	—	—	—	31,744	—	—	—	—	—	26,077	3,463	11,641	112,868
Residual Fuel Oils																	
Refinery	2,287	104	2,391	55	1,441	246	138	1,880	385	3,964	2,670	123	18	7,160	510	7,103	19,044
Bulk Terminal	—	—	19,517	—	—	—	—	1,699	—	—	—	—	—	4,053	0	2,333	27,602
Pipeline	—	—	5	—	—	—	—	0	—	—	—	—	—	1	0	159	165
Total	—	—	21,913	—	—	—	—	3,579	—	—	—	—	—	11,214	510	9,595	46,811
Naphtha < 400 Deg. Petro. Feedstock																	
Refinery	269	0	269	0	125	0	55	180	90	839	458	33	0	1,420	0	73	1,942
Total	269	0	269	0	125	0	55	180	90	839	458	33	0	1,420	0	73	1,942
Other Oils > 400 Deg. Petro. Feedstock																	
Refinery	6	0	6	0	12	0	0	12	214	1,298	293	0	0	1,805	3	136	1,962
Total	6	0	6	0	12	0	0	12	214	1,298	293	0	0	1,805	3	136	1,962

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, June 1984
(Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appa-lachian #1	Total	Appa-lachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Special Naphthas																	
Refinery	85	27	112	0	182	0	171	353	27	1,169	79	144	0	1,419	9	179	2,072
Bulk Terminal	--	--	631	--	--	--	--	154	--	--	--	--	--	62	0	36	883
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	68	0	0	0	0	68	0	0	68
Total	--	--	743	--	--	--	--	507	--	--	--	--	--	1,549	9	215	3,023
Lubricants																	
Refinery	900	909	1,809	0	760	0	340	1,100	28	2,507	1,224	593	0	4,352	70	457	7,788
Bulk Terminal	--	--	1,202	--	--	--	--	988	--	--	--	--	--	273	2	805	3,270
Total	--	--	3,011	--	--	--	--	2,088	--	--	--	--	--	4,625	72	1,262	11,058
Waxes																	
Refinery	4	87	91	0	37	0	20	57	14	202	128	47	0	391	0	54	593
Total	--	--	91	--	--	--	--	57	--	--	--	--	--	391	0	54	593
Petroleum Coke																	
Refinery	536	0	536	0	277	666	143	1,086	0	295	728	206	0	1,229	174	1,533	4,558
Total	536	0	536	0	277	666	143	1,086	0	295	728	206	0	1,229	174	1,533	4,558
Asphalt and Road Oil																	
Refinery	2,164	162	2,326	384	3,268	1,666	878	6,196	813	367	442	880	219	2,721	2,272	2,026	15,541
Bulk Terminal	--	--	3,230	--	--	--	--	4,009	--	--	--	--	--	557	249	315	8,360
Total	--	--	5,556	--	--	--	--	10,205	--	--	--	--	--	3,278	2,521	2,341	23,901
Miscellaneous Products																	
Refinery	195	19	214	0	108	8	10	126	36	523	114	90	0	763	7	134	1,244
Bulk Terminal	--	--	114	--	--	--	--	21	--	--	--	--	--	61	2	224	422
Pipeline	--	--	19	--	--	--	--	85	--	--	--	--	--	285	0	180	569
Natural Gas Processing Plant	0	0	0	0	2	0	0	2	7	0	0	2	0	9	1	0	12
Total	--	--	347	--	--	--	--	234	--	--	--	--	--	1,118	10	538	2,247
Total Stocks, All Oils	--	--	189,056	--	--	--	--	258,366	--	--	--	--	--	844,258	33,278	177,217	1,502,175

[1] Includes 33,879 thousand barrels of domestic crude oil.

Source: See Explanatory Notes on Data Collection and Estimation.

-- Not Applicable.

Table 25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, June 1984 (Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I Total	**22,477**	**25,561**	**3,432**	**34,251**	**21,908**
Connecticut	599	609	50	1,608	320
Delaware, D.C., Maryland	1,138	1,451	172	2,623	1,756
Florida	2,905	3,744	215	1,938	1,612
Georgia	1,291	1,571	88	966	353
Maine	418	556	84	861	720
Massachusetts	1,113	1,295	49	2,091	783
New Hampshire, Vermont	61	64	w	450	233
New Jersey	3,199	4,898	690	9,046	8,984
New York	4,794	2,713	338	4,917	3,201
North Carolina	1,208	1,318	569	1,450	667
Pennsylvania	2,582	3,925	545	4,329	1,529
Rhode Island	187	463	w	788	22
South Carolina	867	954	205	766	749
Virginia	1,823	1,757	382	2,198	908
West Virginia	292	243	12	220	71
PAD District II Total	**20,593**	**20,649**	**1,439**	**22,831**	**3,579**
Illinois	3,670	4,599	235	4,515	869
Indiana	3,023	2,977	171	2,653	399
Iowa	736	688	w	1,187	w
Kansas	1,066	877	16	1,467	77
Kentucky	876	1,267	110	1,163	194
Michigan	2,232	2,379	130	2,013	529
Minnesota	1,321	667	w	1,801	287
Missouri	871	618	w	565	w
Nebraska	470	199	0	230	0
North & South Dakota	419	354	0	942	w
Ohio	2,619	2,947	280	2,360	484
Oklahoma	1,035	900	334	1,732	177
Tennessee	1,140	1,006	88	854	164
Wisconsin	1,115	1,171	w	1,349	115
PAD District III Total	**15,986**	**17,048**	**1,867**	**19,151**	**11,213**
Alabama	953	811	67	862	879
Arkansas	205	175	w	261	56
Louisiana	1,882	3,203	603	4,238	3,969
Mississippi	1,191	2,108	13	874	468
New Mexico	244	223	w	349	18
Texas	11,511	10,528	1,093	12,567	5,823
PAD District IV Total	**2,815**	**1,571**	**37**	**2,845**	**510**
Colorado	775	479	0	423	109
Idaho	264	131	0	227	0
Montana	615	326	w	817	87
Utah	295	177	0	587	202
Wyoming	866	458	w	791	112
PAD District V Total	**9,853**	**11,055**	**245**	**10,400**	**9,436**
Alaska	443	288	w	1,111	w
Arizona	461	458	w	276	0
California	5,704	7,521	137	5,390	6,347
Hawaii	286	174	0	243	w
Nevada	187	218	w	148	w
Oregon	893	729	w	968	370
Washington	1,879	1,667	w	2,264	1,555
United States Total	**71,724**	**75,884**	**7,020**	**89,478**	**46,646**

Table 26. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge between PAD Districts, June 1984
(Thousand Barrels)

Commodity	From I to			From II to				From III to				From IV to			From V to			
	II	III	V	I	III	IV	V	I	II	IV	V	II	III	V	I	II	III	IV
Crude Oil (Tanker and Barge only)	9	261	0	26	0	0	0	444	1,687	0	0	0	0	0	2,923	642	12,126	0
Petroleum Products	8,893	405	0	2,759	8,665	2,031	844	73,600	27,876	0	1,648	1,724	915	1,278	0	0	73	0
Pentanes Plus	0	0	0	0	841	0	0	0	852	0	0	83	150	0	0	0	0	0
Liquefied Petroleum Gases	0	0	0	429	5,161	45	0	1,058	6,293	0	0	627	765	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	844	130	40	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	5,706	0	0	1,456	1,790	1,301	0	45,422	12,612	0	890	574	0	887	0	0	0	0
Finished Leaded Motor Gasoline	2,979	0	0	484	906	642	0	16,584	5,855	0	445	359	0	547	0	0	0	0
Finished Unleaded Motor Gasoline	2,727	0	0	972	884	659	0	28,838	6,757	0	445	215	0	340	0	0	0	0
Finished Aviation Gasoline	15	0	0	0	0	22	0	274	173	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	121	81	0	0	209	0	0	281	61	0	184	78	0	52	0	0	0	0
Kerosene-Type Jet Fuel	162	0	0	136	38	449	0	8,517	1,104	0	201	4	0	92	0	0	0	0
Kerosene	3	0	0	0	0	0	0	229	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	2,809	0	0	310	532	214	0	14,916	5,617	0	363	358	0	247	0	0	0	0
Residual Fuel Oil	0	0	0	35	34	0	0	1,640	1	0	0	0	0	0	0	0	0	0
Naphtha and Other Oils for Petro. Feedstock	34	0	0	17	0	0	0	9	19	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	147	120	0	0	0	0	0	0	0	0	0
Lubricants	0	148	0	35	23	0	0	642	475	0	10	0	0	0	0	0	40	0
Waxes	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	120	0	116	0	0	0	183	509	0	0	0	0	0	0	0	0	0
Miscellaneous Products	43	56	0	225	37	0	0	105	0	0	0	0	0	0	0	0	33	0
Total All Products	8,902	666	0	2,785	8,665	2,031	844	74,044	29,563	0	1,648	1,724	915	1,278	2,923	642	12,199	0

See footnotes at end of table.

Table 27. Movements of Petroleum Products by Pipeline between PAD Districts, June 1984
(Thousand Barrels)

Commodity	From I to		From II to			From III to				From IV to			From V to	
	II	III	I	III	IV	I	II	IV	V	II	III	V	III	IV
Pentanes Plus	0	0	0	841	0	0	852	0	0	83	150	0	0	0
Liquefied Petroleum Gases	0	0	429	5,161	45	873	6,293	0	0	627	765	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	4,379	0	1,219	1,737	1,301	34,952	11,968	0	890	574	0	887	0	0
Finished Leaded Motor Gasoline	2,227	0	401	880	642	12,925	5,561	0	445	359	0	547	0	0
Finished Unleaded Motor Gasoline	2,152	0	818	857	659	22,027	6,407	0	445	215	0	340	0	0
Finished Aviation Gasoline	15	0	0	0	22	25	110	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	209	0	281	61	0	184	78	0	52	0	0
Kerosene-Type Jet Fuel	114	0	120	38	449	6,561	1,019	0	201	4	0	92	0	0
Kerosene	0	0	0	0	0	180	0	0	0	0	0	0	0	0
Distillate Fuel Oil	1,959	0	249	524	214	11,598	4,854	0	363	358	0	247	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	195	0	0	0	0	0	0	0	0	0	0	0
Total	6,467	0	2,212	8,510	2,031	54,470	25,157	0	1,638	1,724	915	1,278	0	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 28. Movements of Crude Oil and Petroleum Products by Tanker and Barge between PAD Districts, June 1984 (Thousand Barrels)

Commodity	From I to			From II to			From III to						From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Crude Oil	9	261	0	26	0	0	444	0	444	0	1,687	0	2,923	642	12,126
Petroleum Products	2,426	405	0	547	155	844	19,130	787	3,341	15,002	2,719	10	0	0	73
Liquefied Petroleum Gases	0	0	0	0	0	0	185	0	0	185	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	844	130	0	62	68	40	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	37	0	0	37	0	0	0	0	0
Finished Motor Gasoline	1,327	0	0	237	53	0	10,470	28	1,130	9,312	644	0	0	0	0
Finished Leaded Motor Gasoline	752	0	0	83	26	0	3,659	0	124	3,535	294	0	0	0	0
Finished Unleaded Motor Gasoline	575	0	0	154	27	0	6,811	28	1,006	5,777	350	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	249	23	94	132	63	0	0	0	0
Naphtha-Type Jet Fuel	121	81	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	48	0	0	16	0	0	1,956	168	435	1,353	85	0	0	0	0
Kerosene	3	0	0	0	0	0	49	0	0	49	0	0	0	0	0
Distillate Fuel Oil	850	0	0	61	8	0	3,318	16	903	2,399	763	0	0	0	0
Residual Fuel Oil	0	0	0	35	34	0	1,640	552	0	1,088	1	0	0	0	0
Naphtha and Other Oils for Petro. Feed. Use	34	0	0	17	0	0	9	0	0	9	19	0	0	0	0
Special Naphthas	0	0	0	0	0	0	147	0	121	26	120	0	0	0	0
Lubricants	0	148	0	35	23	0	642	0	436	206	475	10	0	0	40
Waxes	0	0	0	0	0	0	10	0	10	0	0	0	0	0	0
Asphalt and Road Oil	0	120	0	116	0	0	183	0	45	138	509	0	0	0	0
Miscellaneous Products	43	56	0	30	37	0	105	0	105	0	0	0	0	0	33
Total	2,435	666	0	573	155	844	19,574	787	3,785	15,002	4,406	10	2,923	642	12,199

Source: See Explanatory Notes on Data Collection and Estimation.

Table 29. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker and Barge between PAD Districts, June 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			PAD District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Shipments from PADD VI	Net Receipts PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts PADD V
Crude Oil (Tanker and Barge only)	3,393	270	3,123	2,338	26	2,312	12,387	2,131	10,256	0	0	0	0	15,691	-15,691
Petroleum Products	76,359	9,298	67,061	38,493	14,299	24,194	10,058	103,124	-93,066	2,031	3,917	-1,886	3,770	73	3,697
Pentanes Plus	0	0	0	935	841	94	991	852	139	0	233	-233	0	0	0
Liquefied Petroleum Gases	1,487	0	1,487	6,920	5,635	1,285	5,926	7,351	-1,425	45	1,392	-1,347	0	0	0
Unfinished Oils	130	0	130	40	844	-804	0	170	-170	0	0	0	844	0	844
Motor Gasoline Blending Components	37	0	37	0	0	0	0	37	-37	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	46,878	5,706	41,172	18,892	4,547	14,345	1,790	58,924	-57,134	1,301	1,461	-160	1,777	0	1,777
Finished Leaded Motor Gasoline	17,068	2,979	14,089	9,193	2,032	7,161	906	22,884	-21,978	642	906	-264	992	0	992
Finished Unleaded Motor Gasoline	29,810	2,727	27,083	9,699	2,515	7,184	884	36,040	-35,156	659	555	104	785	0	785
Finished Aviation Gasoline	274	15	259	188	22	166	0	447	-447	22	0	22	0	0	0
Naphtha-Type Jet Fuel	281	202	79	260	209	51	290	526	-236	0	130	-130	236	0	236
Kerosene-Type Jet Fuel	8,653	162	8,491	1,270	623	647	38	9,822	-9,784	449	96	353	293	0	293
Kerosene	229	3	226	3	0	3	0	229	-229	0	0	0	0	0	0
Distillate Fuel Oil	15,226	2,809	12,417	8,784	1,056	7,728	532	20,896	-20,364	214	605	-391	610	0	610
Residual Fuel Oil	1,675	0	1,675	1	69	-68	34	1,641	-1,607	0	0	0	0	0	0
Naphtha and Other Oils for Petro. Feedstock Use	26	34	-8	53	17	36	0	28	-28	0	0	0	0	0	0
Special Naphthas	147	0	147	120	0	120	0	267	-267	0	0	0	0	0	0
Lubricants	677	148	529	475	58	417	211	1,127	-916	0	0	0	10	40	-30
Waxes	10	0	10	0	0	0	0	10	-10	0	0	0	0	0	0
Asphalt and Road Oil	299	120	179	509	116	393	120	692	-572	0	0	0	0	0	0
Miscellaneous Products	330	99	231	43	262	-219	126	105	21	0	0	0	0	33	-33
Total All Products	79,752	9,568	70,184	40,831	14,325	26,506	22,445	105,255	-82,810	2,031	3,917	-1,886	3,770	15,764	-11,994

Source: See Explanatory Notes on Data Collection and Estimation.

Table 30. Production of Residual Fuel Oil by Sulfur Content, June 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Residual Fuel Oil	3,262	84	3,346	59	1,045	164	267	1,535	638	6,450	2,621	233	10	9,952	230	10,161	25,224
0.00 to 0.30% Sulfur	672	25	697	0	87	9	0	96	78	474	517	75	7	1,151	75	469	2,488
0.31 to 1.00% Sulfur	2,286	1	2,287	39	193	0	143	375	457	1,013	740	92	0	2,302	70	2,364	7,398
Greater Than 1.00% Sulfur	304	58	362	20	765	155	124	1,064	103	4,963	1,364	66	3	6,499	85	7,328	15,338

Source: See Explanatory Notes on Data Collection and Estimation.

Table 31. Stocks of Residual Fuel Oil by Sulfur Content, June 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Residual Fuel Oil -- 0.00 to 0.30% Sulfur																	
Refinery	431	27	458	0	46	8	10	64	94	34	297	23	11	459	103	371	1,455
Bulk Terminal	--	--	4,041	--	--	--	--	6	--	--	--	--	--	249	0	52	4,348
Total	--	--	4,499	--	--	--	--	70	--	--	--	--	--	708	103	423	5,803
Residual Fuel Oil -- 0.31 to 1.00% Sulfur																	
Refinery	1,156	3	1,159	52	533	0	66	651	128	1,173	1,162	50	0	2,513	123	1,779	6,225
Bulk Terminal	--	--	6,503	--	--	--	--	461	--	--	--	--	--	1,769	0	778	9,511
Total	--	--	7,662	--	--	--	--	1,112	--	--	--	--	--	4,282	123	2,557	15,736
Residual Fuel Oil -- Greater than 1.00% Sulfur																	
Refinery	700	74	774	3	862	238	62	1,165	163	2,757	1,211	50	7	4,188	284	4,953	11,364
Bulk Terminal	--	--	8,973	--	--	--	--	1,232	--	--	--	--	--	2,035	0	1,503	13,743
Total	--	--	9,747	--	--	--	--	2,397	--	--	--	--	--	6,223	284	6,456	25,107

Source: See Explanatory Notes on Data Collection and Estimation.
-- Not Applicable

Table 32. Movements of Residual Fuel Oil by Tanker and Barge between PAD Districts, by Sulfur Content, June 1984
(Thousand Barrels)

Commodity	From I to			From II to			From III to						From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Residual Fuel Oil	0	0	0	35	34	0	1,640	552	0	1,088	1	0	0	0	0
0.00 to 0.30% Sulfur	0	0	0	0	0	0	313	0	0	313	0	0	0	0	0
0.31 to 1.00% Sulfur	0	0	0	0	0	0	364	0	0	364	0	0	0	0	0
Greater Than 1.00% Sulfur	0	0	0	35	34	0	963	552	0	411	1	0	0	0	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, June 1984 (Thousand Barrels)

Country	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
Arab OPEC				
Algeria	1,186	0	0	1,186
Iraq	0	0	0	0
Kuwait	0	0	792	792
Libya	0	0	0	0
Qatar	0	0	0	0
Saudi Arabia	0	0	0	0
United Arab Emirates	0	0	0	0
Subtotal Arab OPEC	1,186	0	792	1,978
Other OPEC				
Ecuador	0	0	411	411
Gabon	0	0	0	0
Indonesia	939	153	42	1,134
Iran	0	0	0	0
Nigeria	0	0	0	0
Venezuela	485	305	3,223	4,013
Subtotal Other OPEC	1,424	459	3,675	5,558
Other				
Angola	0	0	0	0
Australia	0	3	17	19
Bahamas	491	0	0	491
Bolivia	0	0	0	0
Brazil	1,083	812	0	1,895
Brunei	0	0	0	0
Canada	32	234	358	623
Congo	0	167	0	167
Egypt	0	0	0	0
France	0	0	0	0
Ghana	0	0	0	0
Liberia	0	0	0	0
Malaysia	0	45	(s)	45
Mexico	0	0	6	6
Netherlands	0	0	0	0
Netherlands Antilles	256	507	3,849	4,613
Norway	0	0	0	0
Oman	0	0	0	0
People's Republic of China	0	0	0	0
Peru	0	207	250	456
Puerto Rico	0	0	0	0
Romania	0	389	0	389
Spain	0	0	0	0
Syria	0	0	0	0
Trinidad	0	0	0	0
Tunisia	0	0	0	0
United Kingdom	0	0	0	0
Virgin Islands	458	1,351	1,082	2,890
Yugoslavia	0	0	0	0
Zaire	0	0	0	0

See footnotes at end of table.

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, June 1984 (Thousand Barrels) (continued)

Country	Residual Fuel Oil 0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
Other				
Other Western Hemisphere	147	0	475	622
Other Eastern Hemisphere	(s)	446	83	529
Subtotal Other	2,467	4,161	6,119	12,747
Total Imports	5,077	4,619	10,586	20,283

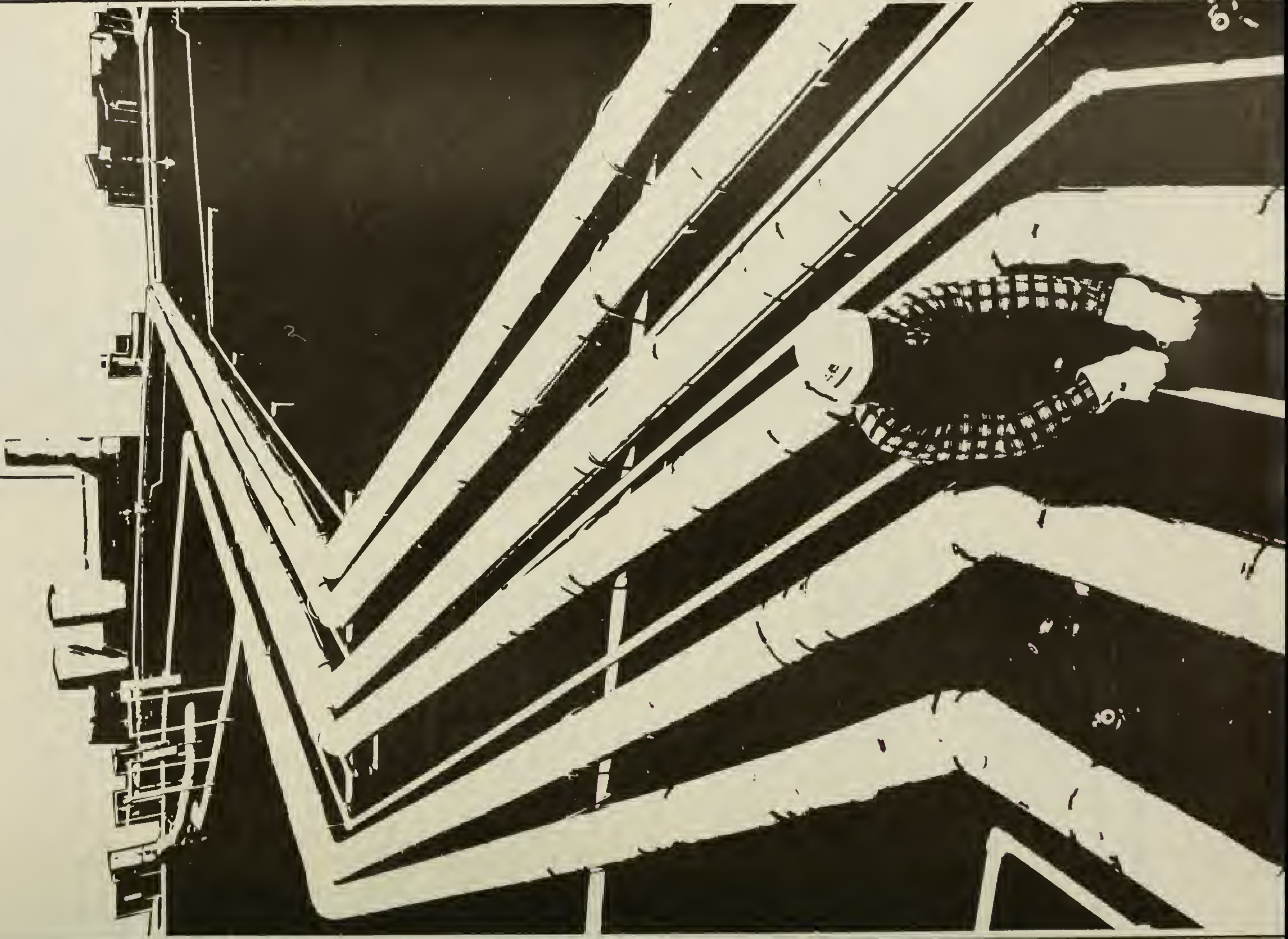
(s) = Less than 500 barrels.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 34. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, June 1984 (Thousand Barrels)

State	Residual Fuel Oil 0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
PAD District I	**4,655**	**3,965**	**9,603**	**18,223**
Connecticut	0	320	0	320
Delaware	0	0	101	101
Florida	0	682	1,127	1,809
Georgia	0	0	24	24
Maine	0	207	612	819
Maryland	0	0	304	304
Massachusetts	266	366	1,841	2,473
New Hampshire	0	0	80	80
New Jersey	1,102	956	1,708	3,765
New York	2,761	968	2,184	5,912
North Carolina	0	0	162	162
Pennsylvania	523	418	535	1,476
Rhode Island	0	0	69	69
South Carolina	0	48	254	301
Vermont	4	0	(s)	4
Virginia	0	0	603	603
PAD District II	**4**	**86**	**43**	**133**
Illinois	0	80	0	80
Michigan	(s)	6	0	6
Minnesota	4	0	24	28
North Dakota	0	0	1	1
Wisconsin	0	0	18	18
PAD District III	**406**	**281**	**792**	**1,480**
Louisiana	0	37	0	37
Texas	406	245	792	1,443
PAD District IV	**1**	**0**	**1**	**2**
Montana	1	0	1	2
PAD District V	**10**	**288**	**148**	**445**
California	0	0	6	6
Hawaii	10	281	142	433
Washington	0	7	0	7
All PAD Districts	**5,077**	**4,619**	**10,586**	**20,283**

(s) = Less than 500 barrels.

Glossary



LIBRARY U. OF I. URBANA-CHAMPAIGN

Definitions of Petroleum Products and Other Terms

lcohol. The family name of a group of organic chem- al compounds composed of carbon, hydrogen, and xygen. The series of molecules vary in chain length nd are composed of a hydrocarbon plus a hydroxyl roup; CH-(CH)n-OH. Alcohol includes methanol and thanol.

lkylation. A refinery process for chemically combining soparaffin with olefin hydrocarbons. The product, alky- te, has high octane value and is blended with motor nd aviation gasoline to improve the antiknock value of ne fuel.

PI Gravity. An arbitrary scale expressing the gravity or ensity of liquid petroleum products. The measuring cale is calibrated in terms of degrees API; it may be alculated in terms of the following formula:

$$\text{Deg API} = \frac{141.5}{\text{sp gr 60F/60F}} - 131.5$$

romatics. Hydrocarbons characterized by unsaturated ng structures of carbon atoms. Commercial petrole- m aromatics are benzene, toluene, and xylene.

sphalt. A dark-brown-to-black cement-like material ontaining bitumens as the predominant constituents, btained by petroleum processing. The definition in- ludes crude asphalt as well as the following finished roducts: cements, fluxes, the asphalt content of mulsions (exclusive of water), and petroleum distil- ates blended with asphalt to make cutback asphalts. he conversion factor for asphalt is 5.5 barrels of 42 .S. gallons per short ton.

STM. The acronym for the American Society for Test- ng and Materials.

viation Gasoline Blending Components. Finished omponents in the gasoline range which will be used or blending or compounding into finished aviation asoline.

viation Gasoline (Finished). All special grades of asoline for use in aviation reciprocating engines, as iven in ASTM Specification D910 and Military Specifi- ation MIL-G5572. Excludes blending components vhich will be used in blending or compounding into fin- shed aviation gasoline.

Barrel. A volumetric unit of measure for crude oil and etroleum products equivalent to 42 U.S. gallons. This neasure is used in most statistical reports. Factors for onverting petroleum coke, asphalt and wax to barrels are given in the definitions for these products.

Barrels Per Calendar Day. See ***Operable Capacity***.

Barrels Per Stream Day. See ***Operable Capacity***.

Bi-Metallic. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of two metals (e.g. platinum, rhenium).

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon. (C4H10). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is covered by ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

> ***Isobutane.*** A normally gaseous branch-chain hydrocarbon, (C4H10). It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. It is extracted from natural gas or refinery gas streams.
>
> ***Normal Butane.*** A normally gaseous straight-chain hydrocarbon, (C4H10). It is a colorless paraffinic gas that boils at a temperature of 31.1 degrees F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C4H8), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil.

Catalytic Hydrocracking. A refining process for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. Hydrocracking is an efficient, relatively low temperature process using hydrogen and a catalyst.

Catalytic Hydrotreating. A process for treating petroleum fractions (e.g. distillate fuel oil and residual oil) and unfinished oils (e.g. naphthas, reformer feeds and heavy gas oils) in the presence of catalysts and substantial quantities of hydrogen to upgrade their quality.

Catalytic Reforming. The use of controlled heat and pressure with catalysts to effect the rearrangement of certain hydrocarbon molecules without altering their composition appreciably; the conversion of low-octane gasoline fractions into higher octane stocks suitable for blending into finished gasoline; also the conversion of naphthas to obtain a more volatile product of higher octane number.

Conventional. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of a metal and a non-metal (e.g. platinum, alumina).

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratifed carbonaceous rocks are either solid or brittle and are highly combustible. In-

LIBRARY U. OF I. URBANA-CHAMPAIGN

cludes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Distillation. The refining process of separating crude oil components by heating and subsequent condensing of the fractions by cooling.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite and oil shale. Drip gases are also included, but topped crude oil (residual) oil and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign according to the following:

> ***Domestic.*** Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 U.S.C. 1331.
>
> ***Foreign.*** Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Delayed Coking. A process to produce low Conradson carbon gas oil for catalytic cracking feedstock and for gasoline.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

> ***No. 1 Fuel Oil.*** A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 degrees F. at the 10-percent point and 550 degrees F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.
>
> ***No. 2 Fuel Oil.*** A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 specifies for this grade distillation temperatures at the 90-percent point between 540 degrees and 640 degrees F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.
>
> ***No. 1 and No. 2 Diesel Fuel Oils.*** Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D975:
>
> > ***No. 1-D.*** A volatile distillate fuel oil with a boiling range between 300-575 degrees F. and used in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.
> >
> > ***No. 2-D.*** A gas oil type distillate of lower volatilit with distillation temperatures at the 90-percen point between 540-640 degrees F. for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.
>
> ***No. 4 Fuel Oil.*** A fuel oil for commercial burner installations not equipped with preheating facilities. I is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oi stocks that conforms to ASTM Specification D396 o Federal Specification VV-F-815C; its kinematic viscosity is between 5.8 and 26.4 centistokes at 100 degrees F. Also included is No. 4-D, a fuel oil for low- and medium-speed diesel engines that conforms t ASTM Specification D975.

Eastern Hemisphere. That half of the earth east of th Atlantic Ocean which includes Europe, Asia, Africa an Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electric Energy (Purchased). Electricity purchased fo refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous straight-chain hydrocarbon, (C2H6). It is a colorless paraffinic gas that boils a a temperature of − 127.48 degrees F. It is extracte from natural gas and refinery gas streams.

Ethylene. An olefinic hydrocarbon, (C2H4), recovere from refinery processes or petrochemical processes.

Field Production. Represents crude oil production o leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Fluid Coking. A thermal process utilizing the fluidized solids technique for continuous conversion of heavy low-grade oils into lighter products.

Gasohol. See ***Motor Gasoline (Finished).***

Gas Oil. A liquid petroleum distillate having a viscosit intermediate between that of kerosene and lubricatin oil. Derives its name from having originally been use in the manufacture of illuminating gas. Now supplie distillate-type fuel oils and diesel fuel, also cracked t produce gasoline.

Gasoline Blending Components. Finished component in the gasoline range which will be used for blending o compounding into finished aviation or motor gasoline.

Idle Capacity. The component of operable capacity tha is not in operation and not under active repairs, bu capable of being placed in operation within 30 days and capacity not in operation but under active repairs that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residua fuel oil, without being processed as such. Importe rude oil burned as fuel includes lease condensate and quid hydrocarbons produced from tar sand oil, gilsoite, and shale oil.

sobutane. See ***Butane.***

somerization. A refining process which alters the undamental arrangement of atoms in the molecule. sed to convert normal butane into isobutane, an lyklation process feedstock, and normal pentane and exane into isopentane and isohexane, high-octane asoline components.

erosene. A petroleum distillate that boils at a temperaure between 300-550 degrees F., that has a flash point igher than 100 degrees F. by ASTM Method D56, that as a gravity range from 40-46 degrees API, and that has burning point in the range of 150-175 degrees F. Inluded are the two classifications recognized by ASTM 3699: No. 1–K and No. 2–K, and all grades of keresene alled range or stove oil which have properties similar o No. 1 fuel oil, but with a gravity of about 43 degrees PI and a maximum end-point of 625 degrees F. Keroene is used in space heaters, cook stoves, and water eaters and is suitable for use as an illuminant when urned in wick lamps.

erosene-Type Jet Fuel. A quality kerosene product ith an average gravity of 40.7 degrees API, and a 10 ercent distillation temperature of 400 degrees F. It is overed by ASTM Specification D1655 and Military pecification MIL–T–5624L (Grades JP–5 and JP–8). A elatively low-freezing point distillate of the kerosene ype; it is used primarily for commercial turbojet and urboprop aircraft engines.

ease Condensate. A natural gas liquid recovered from as well gas (associated and nonassociated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

iquefied Petroleum Gases (LPG). Ethane, Ethylene, ropane, propylene, normal butane, butylene, and isoutane produced at refineries or natural gas processing lants, including plants that fractionate raw natural gas lant liquids.

iquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/ or refrigeration they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane. Excludes still gas used for chemical or rubber manufacture which is reported as a petrochemical feedstock and also excludes liquefied petroleum gases intended for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstock or other uses.

Lubricating Oils. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include:

Bright Stock. A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.

Neutral. A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100 degrees F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.

Other. A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere, e.g., petrolatum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, speciality oils and medicinal oils.

Motor Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Specifications for motor gasoline, as given in ASTM Specification D439 or Federal Specification VV–G–1690B, include a boiling range of 122-158 degrees F. at the 10-percent point to 365-374 degrees F. at the 90-percent point and a Reid vapor pressure range from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blend stock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol) in which 10 percent or more of the product is alcohol.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range with an average gravity of 52.8 degrees API and 20 to 90 percent distillation temperatures of 290 degrees to 470 degrees F, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specification of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: Ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e. products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C_5H_{12}), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Normal Butane. See ***Butane.***

OPEC. The acronym for the Organization of Petroleum Exporting Countries, oil-producing and exporting countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation, and not under active repairs but capable of being placed in operation within 30 days; or not in operation but under active repairs that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

> ***Barrels Per Calendar Day.*** The maximum number of barrels of input that can be processed in an atmospheric distillation facility during a twenty-four hour period after making allowances for the following limitations:
>
> > The capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation.
> >
> > The types and grades of inputs to be processed.
> >
> > The types and grades of products expected to be manufactured.
> >
> > The environmental constraints associated with refinery operations.
> >
> > The reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs and turnaround.
> >
> > The reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.
>
> ***Barrels Per Stream Day.*** The amount a unit can process running at full capacity under optimal crude and product slate conditions.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as raw materials. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline and plant condensate.

Petrochemical Feedstock Use. Chemical feedstocks derived from petroleum, principally for the manufacture of chemicals, synthetic rubber and a variety of plastics. The categories reported are "Naphtha-Less than 400 degrees F. end-point" and "Other oils over 400 degrees F. end point."

> ***Naphtha-Less Than 400 Degrees F. End-Point.*** A naphtha with an end point of less than 400 degrees F. that is intended for use as a petrochemical feedstock.
>
> ***Other Oils-Over 400 Degrees F. End-Point.*** Oils with an end point over 400 degrees F. that is intended for use as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels of 42 U.S. gallons per short ton.

> ***Marketable Coke.*** Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (i.e., catalytic cracking) carbon is deposited on the catalyst thus, deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refinery process. This carbon or coke is not recoverable in a concentrated form.

etroleum Products. Petroleum products are obtained
rom the processing of crude oil (including lease con-
lensate), natural gas and other hydrocarbon com-
ounds. Petroleum products include unfinished oils,
quefied petroleum gases, pentanes plus, aviation
asoline, motor gasoline, naphtha-type jet fuel, kero-
ene-type jet fuel, kerosene, distillate fuel oil, residual
uel oil, naphtha less than 400 F. end-point, other oils-
ver 400 F. end-point, special naphthas, lubricants,
vaxes, petroleum coke, asphalt, road oil, still gas, and
niscellaneous products.

etroleum Refinery. An installation that manufacturers
inished petroleum products from crude oil, unfinished
ils, natural gas liquids, other hydrocarbons, and alco-
ol.

lant Condensate. One of the natural gas liquids, most-
y pentanes and heavier hydrocarbons, recovered and
eparated as liquids at gas inlet separators or scrub-
ers in processing plants.

rimary Stocks. Stocks of crude oil or petroleum prod-
cts held in storage at (or in) leases, refineries, natural
as processing plants, pipelines, tankfarms, and bulk
erminals that can store at least 50,000 barrels of petro-
eum products or that can receive petroleum products
y tanker, barge, or pipeline. Crude oil that is in transit
rom Alaska, or that is stored on Federal leases or in the
Strategic Petroleum Reserve is included. Primary
Stocks excludes stocks of foreign origin that are held
n bonded warehouse storage.

ropane. A normally gaseous straight-chain hydrocar-
on, (C3H8). It is a colorless paraffinic gas that boils at
a temperature of -43.67 degrees F. It is extracted from
atural gas or refinery gas streams. It includes all prod-
cts covered by Gas Processors Association Specifica-
ions for commercial propane and HD-5 propane and
ASTM Specification D1835.

Propylene. An olefinic hydrocarbon, (C3H6), recovered
from refinery processes or petrochemical processes.

Residual Fuel Oil. The topped crude of refinery operations which includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D396 and Federal Specification VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2 (NATO Symbol F-77), and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust pallative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Special Naphthas. All finished products within the gasoline range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point and have a boiling range of 90 degrees to 220 degrees F. "Special naphthas" includes all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and/or refinery fuel use.

Petrochemical Feedstock Use. Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc. are considered petrochemical products; therefore, only their feedstock equivalents are included.

Fuel Use. All other still gas.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking is used to increase the yield of gasoline obtainable from crude oil.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid-being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal cracking process in which heavy vacuum-still bottoms produced on the primary distillation unit are cracked to increase production of distillate products.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series pre-

dominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42-U.S. gallon barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics:

Penetration at 77 degrees F. (D1321)–60 maximum. Viscosity at 210 degrees F. in Saybolt Universal Seconds (SUS). (D88)–60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)–5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics:

Viscosity at 210 degrees F. (D88)–59.9 SUS (10.18 centistokes) maximum. Oil Content (D721)–0.5 percent maximum. Other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics:

Viscosity at 210 degrees F. (D88)–59.9 SUS (10.18 centistokes) maximum. Oil Content (D721)–0.51 percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that includes North and South America and adjacent islands.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Bureau of Mines Petroleum Refining Districts and PAD Districts

The following are the Bureau of Mines petroleum refining districts which make up the PAD districts:

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian #1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

PAD District II

Appalachian #2: The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

Indiana—Illinois—Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

Minnesota—Wisconsin—North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma—Kansas—Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana—Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

PAD District IV

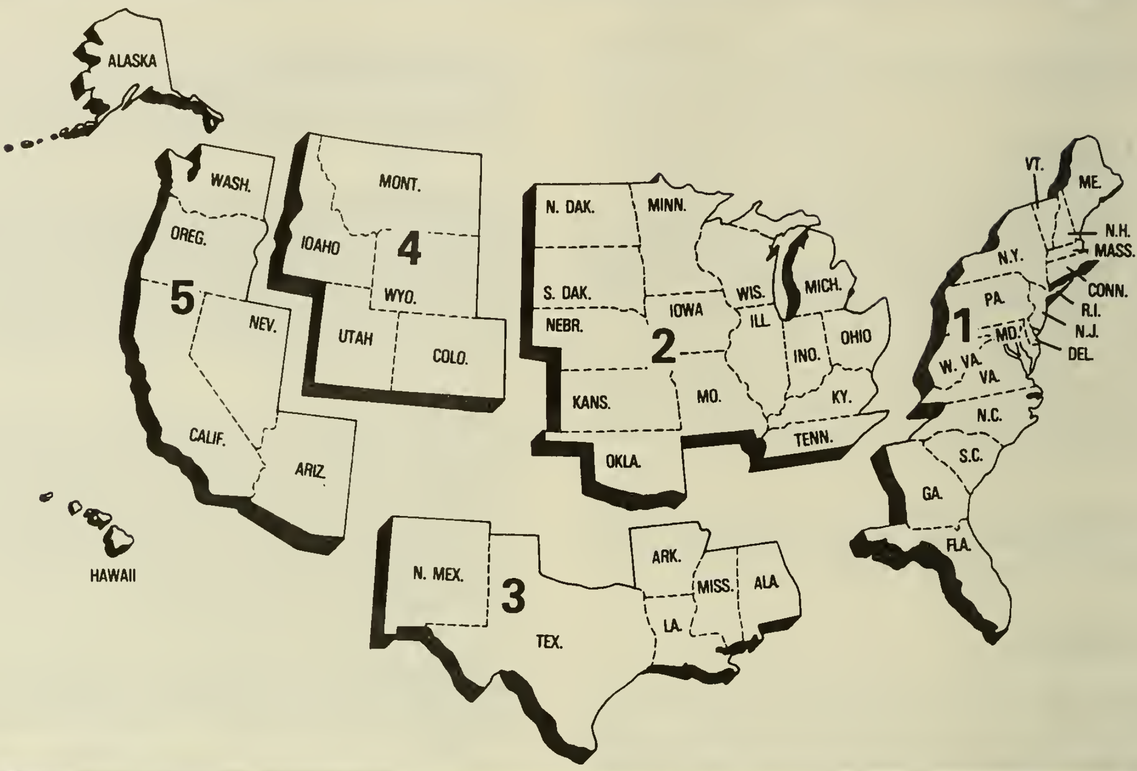
Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

PAD District V

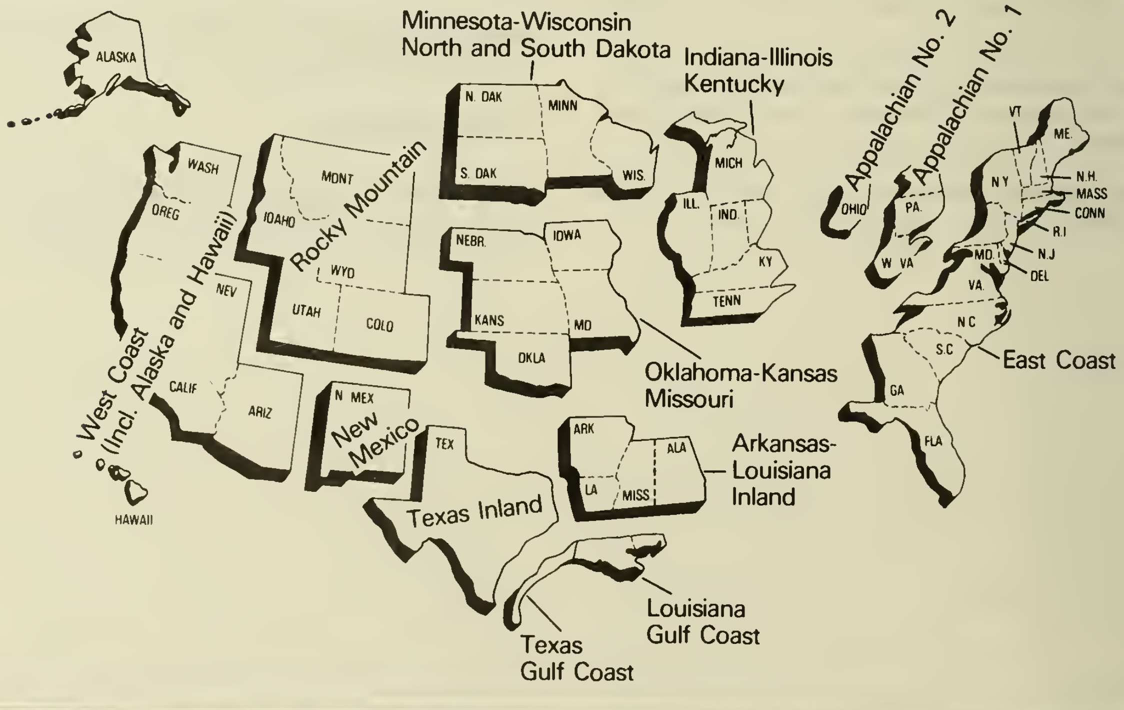
West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

LIBRARY U. OF I. URBANA-CHAMPAIGN

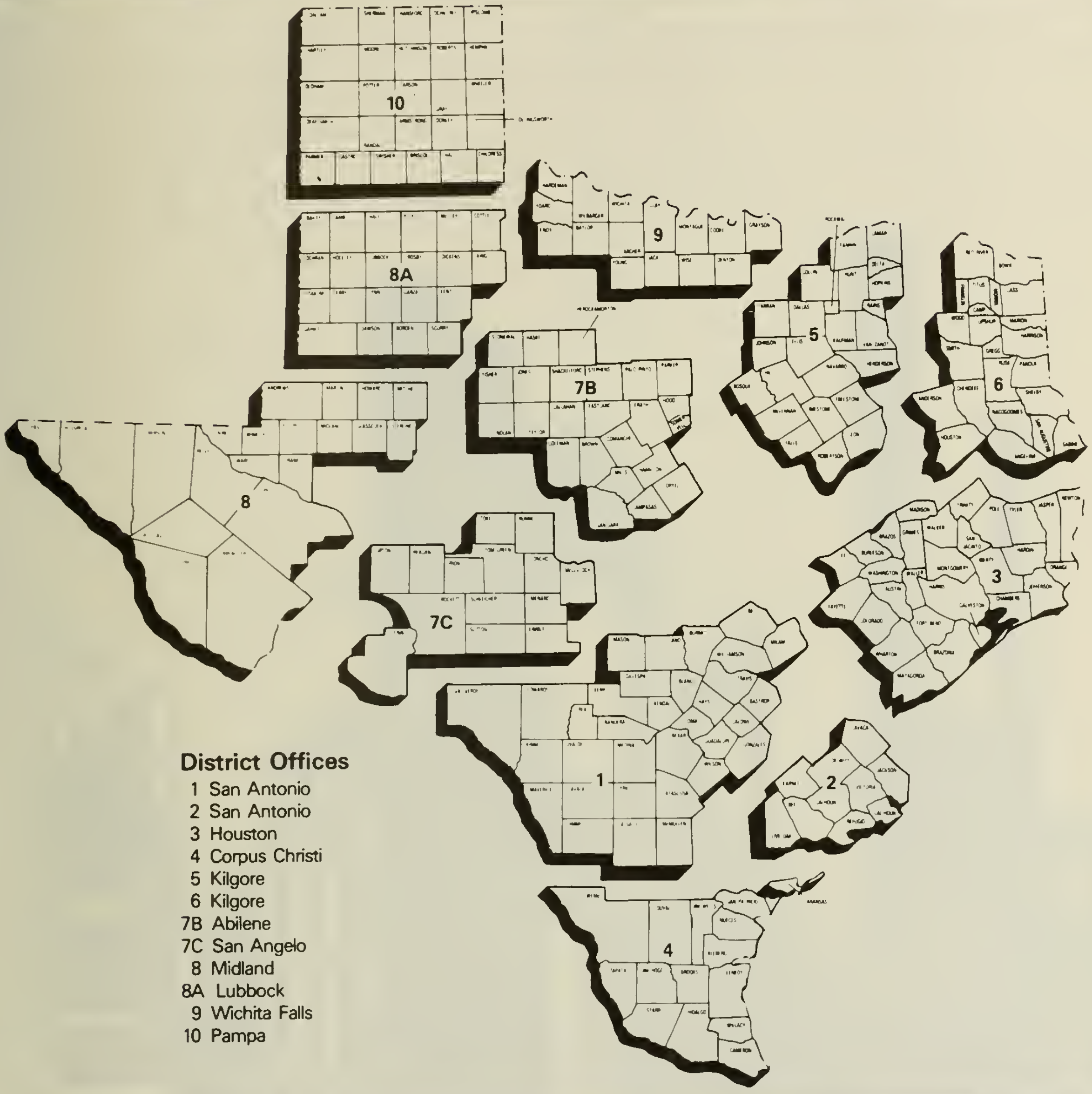
Petroleum Administration for Defense (PAD) Districts



Bureau of Mines Refining Districts



District Map Oil and Gas Division Railroad Commission of Texas

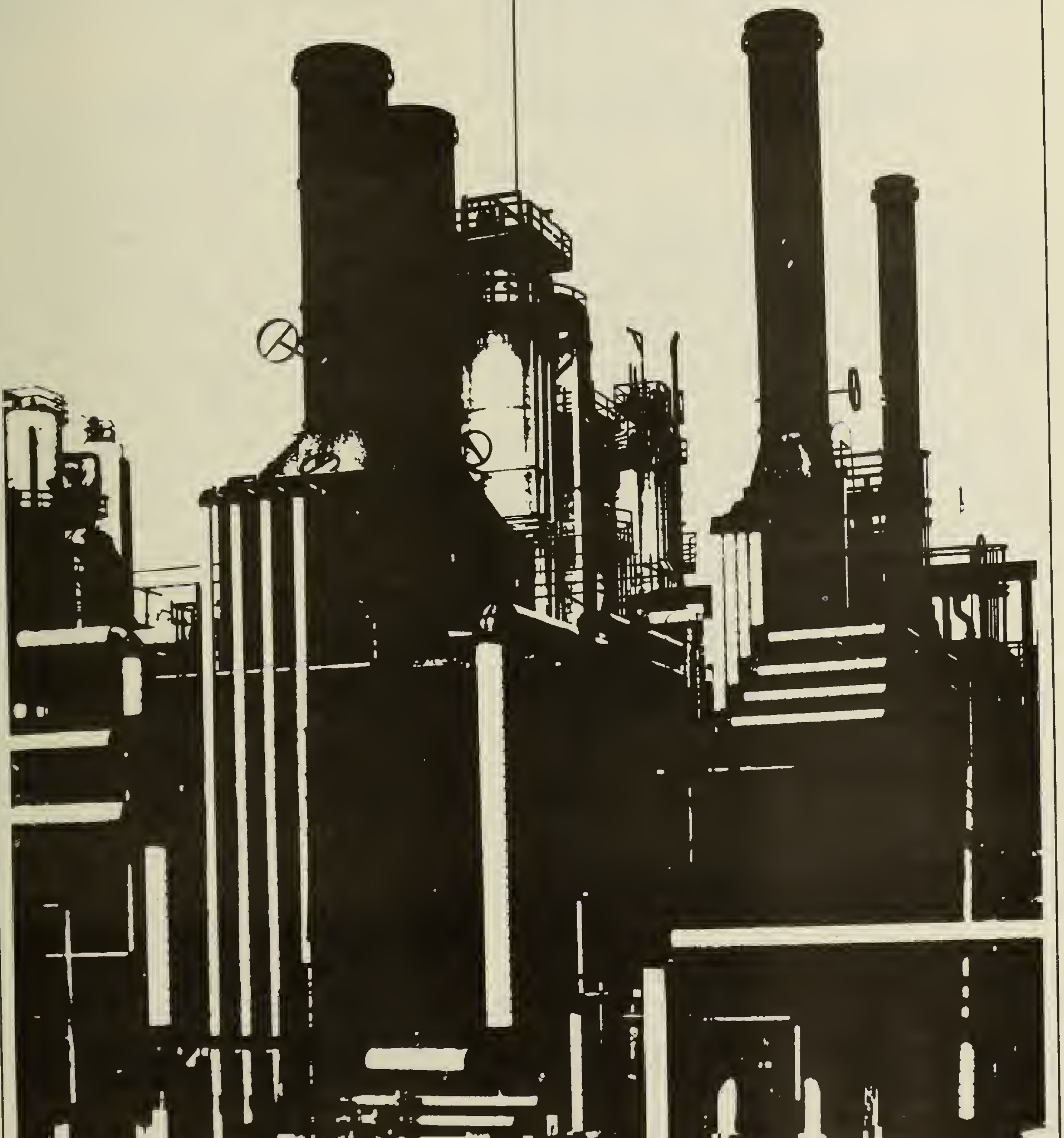


District Offices

1 San Antonio
2 San Antonio
3 Houston
4 Corpus Christi
5 Kilgore
6 Kilgore
7B Abilene
7C San Angelo
8 Midland
8A Lubbock
9 Wichita Falls
10 Pampa

LIBRARY U. OF I. URBANA-CHAMPAIGN

Explanatory Notes



LIBRARY U. OF I. URBANA-CHAMPAIGN

Explanatory Notes

Note 1: Data Collection Methodology

ackground

eginning in January 1983, the Energy Information Adninistration (EIA) unified its petroleum supply data colection activities into the Petroleum Supply Reporting ystem (PSRS). The PSRS represents a family of data ollection survey forms, data processing systems and ublication systems that have been consolidated to chieve comparability and consistency throughout. he primary focus of the consolidation has been to reise the weekly and monthly survey reporting forms to ssure consistency in form layout, preparation instrucions, and definitions. As a result, a new set of survey orms were implemented in January 1983. The followng are the new form numbers and their corresponding redecessor forms:

New Form Number	Name	Old Form Number
EIA-800	Weekly Refinery Report	EIA-161
EIA-801	Weekly Bulk Terminal Report	EIA-162
EIA-802	Weekly Product Pipeline Report	EIA-163
EIA-803	Weekly Crude Oil Stocks Report	EIA-164
EIA-804	Weekly Imports Report	EIA-165
EIA-805	Weekly Shipments from Puerto Rico to the United States Report	—
EIA-810	Monthly Refinery Report	EIA-87
EIA-811	Monthly Bulk Terminal Report	EIA-88
EIA-812	Monthly Product Pipeline Report	EIA-89
EIA-813	Monthly Crude Oil Report	EIA-90
ERA-60	Monthly Imports Report	ERA-60
EIA-815	Monthly Shipments from Puerto Rico to the United States Report	FEA-P133-M-0
EIA-816	Monthly Natural Gas Liquids Report	EIA-64
EIA-817	Monthly Tanker and Barge Movement Report	EIA-170

Forms EIA-800 through 805 comprise the Weekly Petroleum Supply Reporting System (WPSRS). This system is designed to collect basic refinery operations and product stock data for major products on a weekly basis. Data from the WPSRS are published in the *Weekly Petroleum Status Report (WPSR)* and are also used to calculate the preliminary statistics in the "Summary Statistics" section of the *Petroleum Supply Monthly (PSM)*. A description of the WPSRS survey forms follows in Note 1.1.

Forms EIA-810-813, 815-817 and ERA-60 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery operations data, refinery, bulk terminal and pipeline stocks data, crude oil and petroleum product imports data and movements of petroleum products and crude oil between PAD Districts data. These surveys are the primary source of data for the "Summary Statistics" and "Detailed Statistics" sections of the *PSM*. A description of MPSRS survey forms follows in Note 1.2.

Data are also obtained in magnetic tape form from the Bureau of the Census on a monthly basis. These tapes contain aggregated import and export statistics that are used in the preparation of the *PSM*. A description of the Census data follows in Note 1.3.

Note 1.1: Weekly Petroleum Supply Reporting System (WPSRS)

Background

The EIA first began publishing weekly petroleum supply statistics in April 1979 in response to the Iranian oil crisis. Initially, the published data were taken from the American Petroleum Institute (API) *Weekly Statistical Bulletin*. However, in January 1980 the EIA began to publish weekly statistics from its own surveys, with the exception of imports statistics which the EIA did not begin collecting until June 1980.

The weekly surveys collect data comparable to those collected on a monthly basis. Selected petroleum companies report weekly data to the EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports each shipment entering the United States. On Form EIA-805, a company shipping unfinished oils and finished petroleum products into the United States from Puerto Rico reports each shipment. Current weekly data and the most recent monthly data are used to estimate the totals that are published in the *Weekly Petroleum Status Report*.

Sample Frame

The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Sampled companies report data only for facilities in the 50 States and District of Columbia.

The sample for each survey is taken from the following universe:

EIA-800: Based on the EIA-810 universe, which includes all petroleum refineries in the United States and

its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and plants that produce finished motor gasoline through mechanical blending. The selected sample size is 215.

EIA-801: Based on the EIA-811 universe, which includes all bulk terminal facilities in the United States and its territories that have either a total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The selected sample size is 93.

EIA-802: Based on the EIA-812 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that transport only natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies that transport products covered in the weekly survey are included. The selected sample size is 65.

EIA-803: Based on the EIA-813 universe, which consists of all companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

LIBRARY U. OF I. URBANA-CHAMPAIGN

EIA-804: Based on the ERA-60 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico. The selected sample size is 65.

EIA-805: Based on the EIA-815 universe, which includes all shippers of unfinished oils and petroleum products into the United States from Puerto Rico. Four companies report.

Sampling Method

The cut-off method is the sampling procedure used for all weekly surveys except the EIA-802, which uses the monthly universe in its entirety. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous 12-month period. Companies are chosen for the sampling, beginning with the largest and adding companies until the total sample covers 90 percent of the total for the previous time period for each product published in the *Weekly Petroleum Status Report.*

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. The report period closes each Friday at 7 a.m. All canvassed firms and terminal operations companies must file by 5 p.m. on the following Monday.

Estimation and Imputation

After company reports have been checked and entered into the weekly data base, weekly totals for given products are estimated by using the following formula.

The total reported by all companies for the most recent month (M_t) is divided by the amount reported by the sample of companies for the most recent month (M_s). The result is multiplied by the amount reported by the sample of companies for the current week (W_s). The answer, W_t, is an estimate of the amount that would have been reported by all companies for the current week if all companies reported each week.

$$W_t = \frac{M_t}{M_s}(W_s)$$

This procedure is used to estimate total weekly inputs to refineries and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of weekly imports is the sum of the smoothed ratio multiplied by the weekly values and estimates for shipments from Puerto Rico. Imports of other oils includes an adjustment from Census data for unlicensed products because of coverage differences between the monthly imports data and Census data.

Explicit imputation is done for companies which do not respond in a given week. The imputed values are exponentially smoothed means of recent reports from the specific company.

Response Rates

The response rate for the published estimates is usually between 95 and 98 percent.

Note 1.2: Monthly Petroleum Supply Reporting System (MPSRS)

Background

The MPSRS was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that have been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems

were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movements of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS is the first effort to make them all consistent and comparable.

Respondent Frame

EIA-810: All petroleum refineries and plants that produce finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, the Hawaiian Foreign Trade Zone, and Guam. Approximately 313 respondents report on the EIA-810.

EIA-811: All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have a total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline, regardless of ownership of the material. Approximately 328 respondents report on the EIA-811.

EIA-812: All products pipeline companies that carry petroleum products (including interstate, intrastate and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 94 respondents report on the EIA-812.

EIA-813: All companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-815: All licensed importers and importers of record shipping petroleum products from Puerto Rico into the 50 States and the District of Columbia.

Import data from the ERA-60 and EIA-815 are integrated into the import statistics reported in the *PSM*.

EIA-816: All operators of facilities designed to extract liquid hydrocarbons from natural gas stream (natural gas processing plants) or to separate a hydrocarbon stream into its component products, i.e., propane, butane, natural gasoline, etc. (fractionators). Approximately 990 respondents report on the EIA-816.

EIA-817: All known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are about 50 respondents.

ERA-60: All licensed importers and importers of record importing crude oil and petroleum products into the United States and Puerto Rico. The respondent universe consisted of approximately 1,100 firms as of July 31, 1982. However, only a selected 250 importers must report each month regardless of import activity. All others must report only for a month in which they actually had imports. The respondent universe for this survey is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

EIA utilizes a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review industry publications such as the *Oil and Gas Journal* and *LP Gas Almanac* for information on facilities or companies going into operation or closing down. These are augmented by articles in newspapers, letters from respondents indicating changes in status and information received from survey systems operated by other offices.

Periodically an extensive survey study is conducted to completely refresh the frames. This involves consolidating information from every known source including State agencies, federal agencies (e.g., EPA, Corps of Engineers, Census Bureau, etc.), and private industry directories. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Completed forms are required to be postmarked by the 20th day following the end of the report month, with the exception of the EIA-815 and ERA-60 which are due 15 work days following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline, for their data. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed only for nonresponding companies that submitted reports the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by submission of actual data. Data for nonrespondents on the EIA-815 and 817, and ERA-60 are not imputed.

Response Rates

As of the filing deadline, the response rates of the EIA-810 through EIA-813 respondents is over 90 per-

cent. The response rate for the EIA-816 is over 85 percent and for the EIA-817 it is 98 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Names of companies that fail to file for 2 consecutive months are forwarded for further noncompliance action.

In July 1983, the ERA-60 survey had a response rate of 99.9 percent by the filing deadline. The universe was 1,100 firms at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard follow-up of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. In addition, response is cross-checked with response on the Petroleum Licensing Decrementation System (PLDS), a listing of each month's importers. The response rate is generally 98 to 99 percent by the time the data are first published.

LIBRARY U. OF I. URBANA-CHAMPAIGN

Note 1.3: Census Import (IM-145) and Export (EM-522 and EM-594) Data

Background

Each month the EIA purchases magnetic tapes of aggregated import and export statistics from the Bureau of the Census. These data provide the only source of export statistics and are used to augment the import data collected by the EIA. Export statistics and import data from the Census tapes on liquefied petroleum gases and bonded ship bunkers are published in the *PSM*.

Import Statistics (IM-145)

Coverage

The import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise in-transit through the United States, when documented with Customs as an in-transit movement.

2. Shipments from anywhere to U.S. possessions and shipments from U.S. possessions to the United States. (U.S. possessions include Puerto Rico, the Virgin Islands, Guam, and American Samoa.)

3. U.S. merchandise that was held in foreign countries by the U.S. Armed Forces and is returned to the United States for the use of the Armed Forces.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501, 7505, and 7506).

Imported petroleum is reported as *Imports for Consumption*. Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics (EM-522 and EM-594)

Coverage

The export statistics reflect both government and nongovernment exports of domestic and foreign merchandise from the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. All shipments from U.S. possessions, regardless of whether the shipments are sent to the United States, to other U.S. possessions, or to foreign countries.

2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.

3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Exporters are required to file Shipper's Export Declarations with Custom's officials. The only exceptions are those exporters who have been authorized to submit data directly to the Bureau of Census on magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations.

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 2: Supply

The components of petroleum supply are field production, refinery production, imports, and stock withdrawal or addition:

Field Production is the sum of crude oil production (including lease condensate), natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation and revenue agencies. For further explanation, see Explanatory Note 3.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-816, *Monthly Natural Gas Liquids Report*. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.2.

Refinery Production of petroleum products is reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports of crude oil and petroleum products are reported monthly on Form ERA-60, *Report of Oil Imports into the United States and Puerto Rico*, and Form EIA-815, *Shipments of Refined Products (Including Unfinished Oils) from Puerto Rico to the United States*. In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501, 7505, and 7506. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum gases (LPG), where the Census data show a much higher level of imports than EIA data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and LPGs are not licensed products. Therefore, respondents that import only LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha- and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

Stock Withdrawal (+) or Addition (−) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the same month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (−) would represent a buildup of stocks and a reduction in the amount of petroleum supplies distributed for domestic consumption. For a description of survey forms used to make stock withdrawal or addition calculations see Explanatory Note 5.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition.

Crude oil supply is the sum of field production, imports and stock withdrawals or additions. Crude oil disposition is the sum of exports, refinery input, losses and product supplied. Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used.

Note 3: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the State conservation agencies, which collect crude oil production values for tax purposes. The U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of ten State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports

LIBRARY U. OF I. URBANA-CHAMPAIGN

from the State conservation agencies and the U.S. Geological Survey. The ten States that do not report monthly values are Indiana, Kentucky, Missouri, Arkansas, Utah, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly COPS information becomes available. Table 11 of this publication provides information on crude oil production for the most recent month for which COPS values are available. In order to present more timely crude oil production values, the EIA's Dallas Field Office prepares a series of State level estimates which are based on historical production patterns and are summed to obtain the monthly crude oil production values shown in the summary statistics of this publication.

The individual State level estimates are either exponential curve fitted projections based on recent data or are constant level projections based on the average production rate during a recent time period. In some cases, adjustments are made to these estimates based on additional information on expected changes in production rates supplied by a State agency, a trade association, or an individual field operator.

Note 4: Disposition

The components of petroleum disposition are crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Crude Oil Losses is the sum of crude oil losses at refineries. Crude oil losses at refineries are reported on Form EIA-810, *Refinery Report.*

Refinery Inputs of crude oil, natural gas plant liquids, and other liquids are reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published inputs of unfinished oils and of motor and aviation gasoline blending components equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-810, by refineries located in these places.

Product Supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, minus crude oil losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) data were misreported or reported late, (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel oil. These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel oil were reported as either distillate or residual fuel oil and included in product supplied for these products.

Note 5: Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-810, *Monthly Refinery Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form EIA-800, *Weekly Refinery Report*, and on Form EIA-803, *Weekly Crude Oil Stocks Report*. Primary stocks of petroleum products are summed from data reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, Form EIA-810, *Monthly Refinery Report*, Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-812, *Monthly Product Pipeline Report*. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-800, *Weekly Refinery Report*, Form EIA-801, *Weekly Bulk Terminal Report*, and Form EIA-802, *Weekly Crude Oil Stocks Report*. For survey descriptions and other details, see Explanatory Notes 1.1 - 1.3.

Note 6: Average Stock Levels

The graphs displaying monthly stock levels of crude oil, motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases, and other products provide the user with recent data as well as a summary of data from January through December or from July through June for the most recent 3-year period. This summary takes the form of an *average range* that includes seasonal variation determined from a longer time period. The

average range represents the historical pattern; it is not a forecast.

These curves are updated semiannually (On April 1 and October 1), by basing the *average ranges* on a more recent time period. Each 3-year data series is adjusted by dropping the first 6 months and including the most recent 6 months.

For each data series, the monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive. The series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported stock levels. The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends and irregularities as the original data. For crude oil stocks, the derived seasonal factors are very small relative to crude oil stock levels. Therefore, the seasonal factors for distillate fuel oil, residual fuel oil, liquefied petroleum gases and other products are derived using monthly data from 1974-1980. For motor gasoline, the seasonal factors are based on monthly data from 1975, 1976, 1978, 1979 and 1980. In 1977, there was virtually no seasonal behavior in motor gasoline stocks. Monthly stock levels stayed at the same high level for the entire year. In addition, the seasonal patterns in 1973, 1974 and 1977 were not representative of the recent past, and these years were not used in the determination of seasonal patterns for motor gasoline stocks. Because of these differences in the year-to-year seasonal fluctuation of motor gasoline, the evidence for the illustrated seasonal patterns for crude oil, distillate fuel oil, residual fuel oil, liquefied petroleum gases and other products is stronger than is the evidence for the illustrated seasonal patterns for motor gasoline.

In some cases, these seasonal patterns do not show a smooth transition from month to month. For example, the June factor for residual fuel oil is slightly less than the May and July values, making a bump in the curve. As there is little difference in the magnitude of these seasonal factors, it is possible that this variation is due to the small number of observations (7 years) and the data variability.

After seasonal factors are derived, the most recent 3-year period (from January through December or from July through June) is deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard error of the deseasonalized 36 months is calculated adjusting for extreme data points. The width of the *average range* is twice this standard error.

The upper curve of the *average range* is defined as the average plus the seasonal factors plus the standard error. The lower curve is defined as the average plus the seasonal factors minus the standard error.

Note 7: Movements

Movements of crude oil between PAD Districts are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Petroleum product movements are reported on Forms EIA-817, *Monthly Tanker and Barge Movement Report*, and EIA-812, *Monthly Product Pipeline Report*. Net receipts is the difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge. For survey descriptions and other detail, see Explanatory Note 1.2.

Note 8: Preliminary Monthly Statistics

Weekly data (Forms EIA-800, 801, 802, 803, and 804) are used to estimate the most recent monthly values for the *Summary Statistics* section. Since some of the weekly reporting periods overlap two adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To estimate crude oil and petroleum product imports, crude oil input to refineries and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel oil, and residual fuel oil) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the two weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of the earlier of the two weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 3.

Note 9: Notes on Tables

Note 9.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (−), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.

- Natural Gas Plant Production is the sum of Natural Gas Liquids and Finished Petroleum Products Field Production in Table 4.

- Petroleum Products Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.

- Total Crude Oil and Petroleum Products Ending Stocks appear in thousand barrels in Table 2.

Note 9.2 Crude Oil Supply and Disposition statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (–), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.

- Crude Losses and Product Supplied appear as labeled in Table 4.

- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousand barrels in Table 1.

- Total Crude Oil Ending Stocks appear in thousand barrels in Table 2.

- Total Imports appear in Table 4.

Note 9.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (–), Exports, and Product Supplied appear as labeled in Table 4.

- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (–), Exports, and Product Supplied appear as labeled in Table 4.

- Ending Stocks appear in thousand barrels in Table 2.

Note 9.5 Liquefied Petroleum Gases Supply and Disposition statistics represent the aggregation of statistics on ethane, propane, butane, butane-propane mixtures, ethane-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stocks Withdrawal (+) or Addition (–), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.

- Ending stocks appear in thousand barrels in Table 2.

Note 9.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.

- Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (–), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3): Crude oil (including lease condensate) production for *Alaska*, *Lower 48 States*, and *Total U.S.* are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 3), and taking the difference to equal production in the Lower 48 States.

- Line (5): *SPR Imports* are reported on Survey Form ERA-60.

- Line (12): *Total Other Sources* equals crude oil stock withdrawal (+) or addition (–) plus unaccounted for crude oil minus crude losses in Table 2.

- Line (14): Natural gas plant liquids (NGPL) *Production* equals field production of natural gas liquids (NGL) plus field production of finished petroleum products in Table 2.

- Line (15): NGPL *Imports* equals the sum of the im-

LIBRARY U. OF I. URBANA-CHAMPAIGN

ports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.

- Line (16): NGPL *Stock Withdrawal (+) or Addition (−)* is equal to the sum of stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.

- Line (17) equals the sum of lines (14), (15), and (16).

- Line (18): Unfinished oils and gasoline blending components *Stock Withdrawal (+) or Addition (−)* equals stock withdrawal (+) or addition (−) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.

- Line (20): *Other Hydrocarbons and Alcohol New Supply* equals the field production of same in Table 2.

- Line (21): *Refinery Processing Gain* is a balancing item equal to total refinery production minus total refinery input in Table 2.

- Line (23): *Total Other Liquids* equals the sum of lines (18) through (22).

- Line (24): *Total Production of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil product supplied in Table 2.

- Line (25): *Gross Imports of Refined Products* equals imports of LPG plus imports of finished petroleum products in Table 2.

- Line (26): *Exports of Refined Products* equals exports of LPG plus exports of finished petroleum products in Table 2.

- Line (27): *Net Imports of Refined Products* equals the difference between lines (25) and (26).

- Line (28): *Total New Supply of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; minus crude oil product supplied plus imports of LPG and finished petroleum products; minus exports of LPG and finished petroleum products in Table 2.

- Line (29): *Refined Products Stocks Withdrawal (+) or Addition (−)* equals the sum of stock withdrawal (+) or addition (−) for LPG and finished petroleum products in Table 2.

- Line (30): *Total Petroleum Products Supplied for Domestic Use* equals total products supplied in Table 2.

- Lines (31) through (35) equal the respective products supplied in Table 2.

- Line (36): *Other Products Supplied* equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock use, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, unfinished oils, motor gasoline blending components, aviation gasoline blending components and miscellaneous products supplied in Table 2.

- Line (37): *Total Product Supplied* is equal to total products supplied in Table 2.

- The sum of lines (38) and (39), stocks of *Crude Oil and Lease Condensate (Excluding SPR)* and stocks held by the *Strategic Petroleum Reserve*, equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-813.

- Line (43): stocks of *Refined Products*, equals the sum of LPG and finished petroleum product stocks in Table 2.

Note 10: New Stock Basis

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

- Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).

- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,420; and 1982 - 1,462.

- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).

- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.

- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.

- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.

- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.

- Stock withdrawal calculations beginning in 1975, 1981, 1983 were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Products Supply and Disposition" table in the Summary Statistics, is now reported on a component basis (ethane, propane, normal butane, isobutane and pentanes plus). Most of these stocks will now appear in the "Liquefied Petroleum Gases Supply and Disposition" table of the Summary Statistics. This change will affect stocks reported and stock withdrawals in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 1983 - 108

- Other Petroleum Products: 1983 - 248

Note 11: Stocks of Alaskan Crude Oil

Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 12: Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting systems. EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings throughout 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. This difference increased to about 4 percent in 1979 and 5 percent in 1980. There are two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference—in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied. EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years. EIA has recently published a study of the quality of these FHWA data.[1]

---

[1] Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *Error Profile of the Motor Fuel Taxation Data used to Establish and Monitor State Emergency Conservation Targets* (Washington, D.C: December, 1981).

LIBRARY U. OF I. URBANA-CHAMPAIGN

Finished Motor Gasoline Product Supplied on Old and New Basis (Thousand Barrels per Day)

	1979				1980			
	EIA Reported	API Recast	EIA Recast	FHWA[1]	EIA Reported	API Recast	EIA Recast	FHWA[1]
Jan	6,830	7,230	7,084-7,246	6,984	6,323	6,789	6,630-6,791	6,672
Feb	7,254	7,496	7,389-7,568	7,538	6,596	6,983	6,831-7,003	6,830
Mar	7,229	7,414	7,301-7,463	7,316	6,406	6,753	6,607-6,768	6,713
Apr	7,055	7,300	7,187-7,353	7,375	6,800	7,014	6,886-7,052	6,981
May	7,213	7,429	7,313-7,475	7,428	6,729	6,954	6,823-6,984	7,044
Jun	7,191	7,483	7,350-7,516	7,441	6,657	6,966	6,824-6,991	7,049
Jul	6,902	7,241	7,105-7,266	7,299	6,743	6,973	6,960	7,132
Aug	7,330	7,546	7,426-7,588	7,619	6,648	6,841	6,828	7,090
Sep	6,881	7,122	7,016-7,262	7,232	6,510	6,692	6,962	6,685
Nov	6,791	7,068	6,956-7,122	7,142	6,234	6,507	6,516	6,951
Dec	6,730	7,106	6,966-7,127	7,064	6,632	6,948	6,936	6,993
Average	7,034	7,302	7,183-7,347	7,309	6,579	6,882	6,806-6,889	6,925

[1] FHWA gasoline statistics published in their 1979 Table MF-33G, 08-06-80, contain aviation gasoline as well as motor gasoline. Only motor gasoline data are included in published 1980 data. Consequently, the 1979 data shown above were reduced by subtracting aviation gasoline product supplied quantities as published by EIA in the 1979 *Petroleum Statement Annual*. The 1980 FHWA data published in their 1980 Table MF-33GA, August 1981, did not require this adjustment.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oil produced by a refinery is shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981 this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1980 as published (adjusted) and on the same basis as 1981 statistics are now being completed (unadjusted) to permit comparison between 1980 and 1981 data series. Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Adjusted and Unadjusted Refinery Production, and Unadjusted Product Supplied of Distillate and Residual Fuel Oils, by Month for 1979 and 1980 (Thousand Barrels Per Day)

1979

Month	Distillate Fuel Oil Adj. Ref. Prod.	Distillate Fuel Oil Unadj. Ref. Prod.	Distillate Fuel Oil Diff.	Distillate Fuel Oil Unadj. Product Supplied	Residual Fuel Oil Adj. Ref. Prod.	Residual Fuel Oil Unadj. Ref. Prod.	Residual Fuel Oil Diff.	Residual Fuel Oil Unadj. Product Supplied
Jan.	3,043	3,108	65	4,646	1,912	1,946	34	3,594
Feb.	2,888	2,945	57	4,869	1,792	1,822	30	3,625
Mar.	3,019	3,026	7	3,671	1,719	1,723	4	3,243
Apr.	2,945	2,978	32	3,048	1,639	1,656	17	2,524
May	3,066	3,093	27	3,025	1,586	1,600	14	2,517
Jun.	3,153	3,187	35	2,743	1,548	1,566	18	2,601
Jul.	3,305	3,344	38	2,601	1,575	1,594	20	2,471
Aug.	3,321	3,359	38	2,799	1,584	1,603	20	2,570
Sep.	3,354	3,306	– 48	2,599	1,627	1,602	– 25	2,584
Oct.	3,251	3,217	– 34	3,085	1,629	1,612	– 17	2,523
Nov.	3,239	3,200	– 39	3,208	1,736	1,716	– 20	2,795
Dec.	3,221	3,238	17	3,725	1,894	1,903	9	3,022
Average	3,152	3,169	16	3,327	1,687	1,695	8	2,834

1980

Month	Distillate Fuel Oil Adj. Ref. Prod.	Distillate Fuel Oil Unadj. Ref. Prod.	Distillate Fuel Oil Diff.	Distillate Fuel Oil Unadj. Product Supplied	Residual Fuel Oil Adj. Ref. Prod.	Residual Fuel Oil Unadj. Ref. Prod.	Residual Fuel Oil Diff.	Residual Fuel Oil Unadj. Product Supplied
Jan.	3,013	3,093	80	3,794	1,771	1,812	41	3,108
Feb.	2,766	2,888	122	3,834	1,773	1,836	63	3,168
Mar.	2,557	2,690	133	3,312	1,584	1,652	68	2,726
Apr.	2,460	2,554	94	2,729	1,595	1,643	48	2,492
May	2,474	2,610	136	2,538	1,509	1,579	70	2,305
Jun.	2,646	2,721	75	2,392	1,575	1,613	38	2,359
Jul.	2,689	2,783	94	2,343	1,480	1,528	48	2,339
Aug.	2,461	2,582	121	2,258	1,444	1,506	62	2,348
Sep.	2,686	2,726	40	2,627	1,495	1,516	21	2,380
Oct.	2,589	2,650	61	2,981	1,512	1,543	31	2,258
Nov.	2,703	2,823	120	3,069	1,579	1,641	62	2,513
Dec.	2,891	3,052	161	3,776	1,660	1,743	83	2,762
Average	2,661	2,764	103	2,969	1,580	1,634	54	2,562

LIBRARY U. OF I. URBANA-CHAMPAIGN

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Note 13: NGL Import/Export Algorithms

Beginning in January 1984, the Energy Information Administration (EIA) implemented changes in the reporting of natural gas liquid (NGL) supply data, moving from a nine-product slate to a five-component slate that corresponds to industry record-keeping practices. Changes could not be made to the import and export systems. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm is based on information gathered from the larger importers of NGL, who were asked to provide component analyses of the products they imported during the first six months of 1983. The percentages shown in Exhibit 1 are derived from the weighted averages of the data provided by the importers.

EXHIBIT 1. ALGORITHMS FOR ALLOCATING NGL IMPORTS

PRODUCT SLATE	*Ethane*	*Propane*	*Normal butane*	*Isobutane*	*Pentanes Plus*
Natural Gasoline & Isopentane (EIA-814)					100%
Plant Condensate (EIA-814)					100%
Ethane (IM-145)	100%				
Butane (IM-145)			60%	40%	
Butane-Propane Mixtures (IM-145)		40%	35%	20%	5%
Ethane-Propane Mixtures (IM-145)	80%	20%			

Exports

The export algorithm is based on information gathered from the larger exporters of NGL, who were asked to provide component analyses of the products they exported during 1983. The percentages shown in Exhibit 2 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by PAD of exportation, due to the wide variation of components in the mixed streams.

EXHIBIT 2. ALGORITHMS FOR ALLOCATING NGL EXPORTS

		EIA Component Slate				
PRODUCT	*P.A.D.*	*Ethane*	*Propane*	*Normal Butane*	*Isobutane*	*Pentanes Plus*
Ethane	All	100%				
Propane	All		100%			
Butane	All			100%		
Mixed Streams	I, IV, V		40%	60%		
	II	30%	25%	15%	15%	15%
	III		80%	20%		

☆ U.S. GOVERNMENT PRINTING OFFICE: 1984-421-766:10000

LIBRARY U. OF I. URBANA-CHAMPAIGN

DOE F 1340.1
(2-80)

Energy Information Administration

GPO SUBSCRIPTION ORDER FORM

A

(For use in ordering EIA Publications only — Read Ordering Information Section before completing form.)

SEND ORDER FORM TO: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402

Enclosed is $ ______________ ☐ Check

☐ Money order, or charge to my Deposit Account No.

☐☐☐☐☐☐☐ – ☐

Order No. ______________

VISA

MasterCard

Credit Card Orders Only

Total charges $ ______________ Fill in the boxes below

Credit Card No. ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Expiration Date Month/Year ☐☐☐☐ ☐ VISA ☐ Master Card

PLEASE PRINT OR TYPE

NAME AND ADDRESS

NAME – FIRST, LAST

COMPANY NAME OR ADDITIONAL ADDRESS LINE

STREET ADDRESS

CITY **STATE** **ZIP CODE**

(OR COUNTRY)

PRINT OR TYPE TITLES OF ITEMS YOU WISH TO RECEIVE ON A SUBSCRIPTION BASIS:

____

____

____

____

____

____

____

____

FOR OFFICE USE ONLY

QUANTITY	CHARGES
.... ENCLOSED	....
.... TO BE MAILED	....
.... SUBSCRIPTIONS	....
POSTAGE	....
FOREIGN HANDLING	....
MMOB	....
OPNR	....
.... UPNS	
.... DISCOUNT	
.... REFUND	

LIBRARY U. OF I. URBANA-CHAMPAIGN

LIBRARY U. OF I. URBANA-CHAMPAIGN

Energy Information Administration
Forrestal Building
Washington, D.C. 20585

FIRST—CLASS MAIL
POSTAGE & FEES PAID
U.S. DEPT. OF ENERGY
PERMIT NO. G 20

FIRST CLASS MAIL

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

LIBRARY U. OF I. URBANA-CHAMPAIGN

LIBRARY U. OF I. URBANA-CHAMPAIGN

LIBRARY U. OF I. URBANA-CHAMPAIGN

BOUND BY
HNM

UNIVERSITY OF ILLINOIS-URBANA
3 0112 075645660